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ORIGINAL ARTICLES.

SUGGESTIONS IN REGARD TO THE CAUSATION AND TREATMENT OF ACUTE CORYZA.[1]

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OF NEW YORK.

Acute coryza may be produced traumatically by the inhalation of irritating gases. Owing to a peculiar susceptibility, which with some persons is an idiosyncracy, the powder of certain substances, especially epicacuanha, produces the affection. This is probably the explanation of the coryza which occurs in cases of so called hay asthma or hay fever. The affection is an element in certain infectious diseases, especially rubeola, or measles. Iodine, taken internally, in some persons produces this affection. I do not purpose in this paper to consider the affection as occurring in the etiological and pathological connections just named, but as constituting what is commonly known as a "cold in the head," and the incipient stage of the epidemic disease known as influenza.

When a person is said to "have taken cold," usually, as every one knows, the nostrils are first affected. The affection may go no further; but in most instances it advances downward, sometimes affecting and sometimes passing over the pharynx and larynx, and ending in a bronchial inflammation. The affection then may precede a "cold in the throat," a "cold in the windpipe," and a "cold in the chest." It is unnecessary to say that the proper medical names for these successive affections are rhinitis, pharyngitis, laryngitis, and bronchitis. I need not also say that the term catarrh is often used in connection with the names of the several parts affected. This term *Catarrh*, denoting an antiquated error, should long since have been excluded from medical nomenclature, and it is much to be regretted that the term has been adopted in the revised nomenclature recently published in London. The name "cold," popularly used to denote coryza and the affections which follow it, implies that they are attributable to atmospheric influences of which the temperature is the factor. They are especially attributed to the the action of a current of air on the body when it is heated. It is under these circumstances that a person is said to "take cold," and we all know how alive most people are to danger in this regard. With many, one of the chief practical duties of life is to avoid "taking cold." Now I shall assume in this paper that coryza, when it occurs under circumstances implied by the name "cold in the head," is not the effect of an agency connected with the temperature of the atmosphere. That the cause is atmospheric I admit; but the cause is of a special nature, and it is a reasonable supposition that the causative agent is a micro-organism; in other words, the affection is parasitic. The reasonableness of this view of the causation of coryza, is the first of the etiological suggestions which I propose to consider. The question is, what are the grounds for the supposition that acute coryza is produced by a parasitic organism?

The notion that the affection which goes by the name "cold" is caused by cold, has very little to rest upon except its prevalence in and out of the medical profession. It is a traditional notion nearly as fanciful as that expressed by the term catarrh, namely, that it is characterized by a secretion which flows down out of the brain. Among those exposed by their occupations to violent alternations of heat and cold, coryza is not a frequent affection. Long-continued exposure to cold, as in case of shipwreck, sleeping on the ground in a state of intoxication, etc., does not give rise to coryza. It is true that patients with this affection often refer it to some exposure; but this is because they suppose, as a matter of course, they must have "taken cold;" and they accordingly fix upon a particular circumstance when, and from which, they suppose the cold was taken. In a large proportion of cases, however, the affection cannot be referred to any exposure, and it is not uncommon for patients to say that they cannot understand in what way they have "taken cold." Experience thus furnishes very little support for the notion that "a cold" is produced by cold.

As is well known, coryza prevails to a greater or less extent at certain times and places, although the number of cases is not sufficient to constitute an epidemic prevalence. How often is it remarked that "colds" are frequent, when they are not considered as cases of influenza. This fact is evidence of the presence in the atmosphere of some special causative agent. Such an agent, it is certain, is in the atmosphere whenever influenza prevails, and the coryza in influenza differs from that in ordinary "colds" only in that the nasal irritation or inflammation is usually more intense. Now, if the coryza in influenza is due to a special atmospheric agent, a fair conclusion is

[1] Read at the meeting of the Fifth District Branch of the New York State Medical Association, Brooklyn, Sept. 13, 1885.

that the same holds true in ordinary "colds," especially when the latter prevails more or less although not sufficiently to constitute an epidemic prevalence. The atmospherical causative agent of the coryza is not an acrid or irritating material at the outset. It is evidence of this that the development of the affection does not directly follow a sense of local injury or any olfactory sensation. The coryza in other words, cannot be said to be produced traumatically. The development of the coryza, and of the local affections in the parts below which follow, is consistent with the supposition of the presence of organisms which grow and multiply, and are carried by the inspiratory current of air to the pharynx, larynx, and bronchial tubes. A fact which favors this view is the successive occurrence of pharyngitis, laryngitis, and bronchitis after certain intervals of time, namely from twelve to twenty-four hours. In these intervals the parasite is multiplying in the situations from which it is to emigrate and form new colonies. Acute coryza, like other parasitic diseases, is self-limited. It runs a certain course, ending when the successive generations die out. This is the explanation if the correctness of the parasitic doctrine be assumed.

I have thus stated some rational grounds for the supposition that the acute coryza in influenza, and the affection known as a "cold" is produced by a parasitic organism. To establish this view of the etiology of the affection, it must be demonstrated that a special organism is always present in the affected part; that this organism is not found in this part or in other parts of the body when coryza does not exist; that the organism is capable of being cultivated outside of the body, and that coryza may be produced by placing pure cultures within the nostrils of man or lower animals. The suggestion which I have here to make, is, that some one of our competent and enterprising microscopists undertake to obtain this proof.

The suggestions in regard to the treatment of acute coryza are based on the supposed correctness of the parasitic doctrine. If this doctrine be true, the great object of treatment is the destruction of the parasite, and if this can be done, the invasion of the situations below may be prevented, the affection being thus arrested in the Schneiderian membrane. I have assumed all along that the coryza is the initial event in cases of "cold" and of influenza. This is true of the majority of cases; but, exceptionally, as is well known, the affection may begin at the pharynx, the larynx or with the bronchial tubes. In these cases the parasite travels without stopping beyond the nostrils, obtaining lodgment and forming colonies in either one of the situations just named. With reference to the treatment of acute coryza, I have consulted the works of four American authors, each work able and of recent date. The authors are Cohen, Ingalls, Robinson and Bosworth. Of these authors, the parasitic causation is referred to by one only, Cohen, and by this author only in connection with influenza. He does not dwell upon parasitic treatment; and by the others, parasiticides, as such, are not referred to. All mention topical remedies, administered as powders by insufflation, or by a spray or vapor; but they are mentioned as remedies either to sooth or to excite the inflamed membrane, or as having antiphlogistic effect. All mention a local remedy in repute among the Germans, and known as Brand's or the Brand-Hager remedy, consisting of carbolic acid, 80 grs. alcohol, half an ounce, liquor ammoniæ, 80 minims, and distilled water 154 minims. The liquid is poured upon a sponge placed within a paper cone, and the vapor inhaled through the nostrils. It is intelligible that this remedy may act as a parasiticide, but its efficacy is not attributed to that action by the authors just named.

The parasitic doctrine of the etiology of coryza is not new. Our distinguished countryman Mitchell who, like Moses, was permitted to see from afar the promised land in which medicine is now beginning to discover rich treasures, attributed influenza to the presence of a cryptogamic plant. Sir Henry Holland in 1839 argued in favor of the animalcular origin of iufluenza and other diseases. Some later writers (Hueter, Biermer), have considered as probable the bacterial origin of this affection. The doctrine, however, has up to the present time, received so little consideration, that topical treatment with a view to the destruction of germs and organisms, has been tried to a very limited extent. The permanganate of potassium, and the salicylate of soda, in solution, have been used, but with what success I am unable to say. To these remedies is to be added the vapor of turpentine. I have been told by one not of the medical profession, that the insufflation of quinia and camphor combined and pulverised has proved a successful method of abortive treatment. Helmholtz found in his own case, that the injection of a solution of quinia into the nostrils, arrested the so-called fever. In other cases this treatment has not proved successful. The efficient cause of this affection, however, is organic, but not an organism. I have no facts to offer derived from my own experimental observations, respecting the employment of parasiticides or germicides for arresting a "cold" or an attack of influenza. The opportunities for such observations are readily available by medical practitioners, and I submit, as a concluding suggestion, that a trial be made of the different articles of the materia medica, which are destructive of germs and living organisms without injury to the mucous membrane. Should an article be found which is effective, prior to the demonstration of the parasitic doctrine, the successful treatment, it is needless to say, would furnish strong rational grounds for the support of this doctrine.

THE UTILITY OF DRY DRESSINGS.[1]

BY THOMAS C. SMITH, M.D.,
OF WASHINGTON, D. C.

For several years it has been my practice to apply absorbent powders to such cases as I had formerly treated with ointments and lotions, and the treatment has been so satisfactory that I deem it a professional duty to urge its adoption by the profession.

The vesicular and pustular diseases of the skin in infants were the first in which I adopted the "dry"

[1]Read before the Medical Society of the District of Columbia, October 7th, 1885.

treatment. A number of cases of so-called *eczema facialis* and *E. capitis* were met within a short time, some of which had become chronic; had resisted all treatment; the doctor had been changed many times. Some of which had been under my own treatment by ointments and had been taken out of my charge and treated by regular and irregular practitioners, only to return to me for a new trial; in some hygienic and dietary conditions were bad. At one time I thought a remedy, which was to be a specific, had been found in the white precipitate used as strong as a dram to the ounce, but this expectation was doomed to follow others. Pounds of zinc and lead ointments had been prescribed for these cases with the usual results—disappointment to the physician and dissatisfaction on the part of patients and their friends. Some other course must be adopted, or some other doctor would take the case. I now determined to try the "dry" dressings, and one illustrative case will suffice to demonstrate the utility of the treatment:

In a family which I attend, a child, at that time ten years old, had been under treatment since birth for general eczema, which was worse, however, on the face and hands. The child's life had been almost a burden to her from the actual suffering caused by the disease and the annoyances due to the criticisms of children, who, besides making disparaging remarks, refused to play with her for fear of becoming contaminated. She had been under the treatment of many of the best physicians in the city without being benefited. Finally the disease seemed to die of itself. A second child in the same family became affected in the same way, and the parents were apprehensive that this child's case was to be the counterpart of the other. The face was covered with large crusts, from beneath which serum and pus were continually escaping to excoriate the healthy skin. The scalp was likewise affected, causing the hair to be matted to such an extent as to demand its removal by the scissors in order to keep the child at all decent. The hands and knees, also, were covered with large sores. It is unnecessary to further describe these appearances, as they are familiar to you all. It is proper to say, however, that this child was intensely scrofulous, as was the other one. As before remarked, the first child had been thoroughly treated, and in addition to cod-liver oil took large doses and quantities of that arrant pharmacopœial fraud, syrup of the iodide of iron. This patient was put upon Scott's emulsion of cod-liver oil, and locally a powder composed of oxide of zinc, starch, and a small quantity of carbolic acid, was applied freely. No effort was made to remove the crusts by poultices or water. Of course the child was washed on the healthy skin, and thoroughly dried, but the powder was not touched.

This is a point which cannot be too strongly emphasized—not to use water after the treatment by the powder has been commenced. The formation of a crust I look upon as a conservative process, and endeavor by the drying powders to provide a substitute which does not present the repulsive appearance of a crust. If the crust is let alone, it will begin to break off at the edges, and if the dressing is promptly applied to the surface vacated by the crust, and this policy vigorously followed up, it is surprising how soon the diseased area is contracted, and a repulsive sore healed.

To return to the patient, and complete the history of the case by saying that speedy relief ensued from the treatment. This is but a single case, yet it is typical of twenty-five or thirty which might be recited. Some may conclude that the results obtained were due to the constitutional treatment, but in so large a number of instances has local treatment been found sufficient that the first place must be given to the local applications. Still I generally give internal treatment in these cases, and now rely almost entirely on the sulphide of calcium for that purpose. Gelatine coated pills are usually prescribed, varying in strength from one-tenth to one-half grain, of which one is to be given three times daily, dissolved in water. I find this the most eligible method of prescribing the remedy. Recently I have been using a prescription somewhat like this for the powder, which is to be applied in these and other cases which will be mentioned further on, viz:

℞	Zinci oxid.	℥iv
	Acid. tannic.	℥ss
	Acid. carbolic cryst.	gr. viii
	Amyli pulv.	℥iiiss M

Of course the ingredients are varied to suit individual cases, but my object is only to indicate a formula. Sometimes boracic acid is added, but bismuth is seldom used in my prescriptions.

A word as to the manner of using the dressing. When the face or head is affected, use warm water for cleansing purposes. Remove any loose crusts which have been detached, and with a dredging box, or any other suitable means, apply the powder thoroughly and thickly. It is not practicable to keep any cloths on the face to retain the powder, hence it must be applied oftener; but on the head a close-fitting cap may be used. On an extremity, the diseased surface may be covered to the depth of one-fourth of an inch with the powder, over which a piece of absorbent cotton may be placed and kept in contact by a bandage. In the latter situations it may not be necessary to disturb the dressings for several days, and on removing these it will usually be found that the discharges have been absorbed and that the powder is more or less lumpy. Some of this may be brushed away and more powder applied, but it is never necessary to try to get a view of the surface beneath the powder, as that will be seen in due time.

But it is not these cases alone which have been benefited by the "dry" treatment. Excoriations about the buttocks in children who are badly fed and nursed, and between the folds of the skin in fat babies during warm weather, when the discharge is excessive, yield to this treatment. The moist stage of eczema in adults has been relieved also. In fact almost any discharging surface will be relieved sooner by powders than by ointments or lotions.

Two other classes of cases remain to be mentioned for consideration, viz., suppurating wounds and

ulcers. While a number in each class have been benefited, one case in each will be cited to show the efficacy of the treatment.

In March, 1885, I was called to attend a man whose hand had been caught in the machinery in a planing mill. The proximal end of the second phalanx of the middle finger of the right hand had been broken obliquely off, the joint torn open and dislocated, and the broken piece of bone adhering to the integument was lying on the side of the finger. With some difficulty the dislocation was reduced and the finger placed upon a splint to which it was bandaged, and then the whole hand placed on another splint. The wound had been washed with carbolic solution, which was also applied to the finger on cotton before bandaging. On the third day erysipelas supervened, making it necessary to remove the splint from the finger, and dislocation ensued despite my efforts to prevent it. On the subsidence of the erysipelas the wound in the finger was found to be filled with granulations, and a large quantity of pus escaped from the parts. Iodoform ointment was ordered, and the wound daily cleansed with carbolized water, but things went from bad to worse, and finally, I ordered the powder compounded according to the formula above given. Improvement commenced at once; suppuration diminished, the patient's appetite improved and his condition was encouraging in every way, when he left the city about three weeks after the injury was inflicted. Shortly afterwards I received a letter from his physician in Pennsylvania, asking for a copy of the prescription for the powder, which he stated had proven very useful in the case and he desired to continue it. I do not know what the result of the case was, although I believed that amputation of the finger would be necessary; still the comfort afforded the patient by the dressing mentioned, and the marked improvement in the appearance of the wound before the case passed from my charge, justifies me in saying that it was the proper treatment.

About four months ago I was asked to see a lady about 65 years of age, who had been a cripple for four years from ulcers affecting the lower part of the right leg and foot. The ulcers were deep and painful, and were probably of varicose nature. The back of the ankle, the side of the foot as far as the metatarso-phalangal joint and the plantar surface of the heel were the seat of about eight or ten ulcers, from all of which pus flowed in considerable quantity. The tendo-achillis was exposed in the bottom of one of these ulcers.

The patient had been, for years, using zinc ointment, and as she expressed it, "without doing any good." I directed her to cleanse the parts thoroughly, and then dry them with absorbent cotton, after which she was to fill each ulcer with the powder and heap the same on the surrounding surface. She was then to cover the parts with absorbent cotton so as to prevent the powder from falling away, and finally secure the whole with a bandage. The dressings were not to be removed for two days unless they became uncomfortable. Improvement began at once, and at this time all the ulcers have healed except one. The patient is able to bear her weight on her foot and walk without pain, and is very grateful in her expressions for the relief which has been afforded.

Still another class of cases which I omitted to speak of before, may be mentioned now. I have reference to cases of sore nipples. In several cases recently under my care, the patients have been relieved by the dry applications after the usual ointments had failed to afford relief.

I am not aware of any systematic effort to introduce dry dressings in the treatment of cases, such as have been herein mentioned. Hewson's "dry earth" treatment was a move in the right direction and deserved more consideration than it received. In looking over the prescription files in drug-stores, I have been struck with the remarkable absence of prescriptions for dusting powders and the great numbers of orders for ointments. This has forced me to believe that the utility of dry dressings is not appreciated by the profession as it should be, and for that reason it is now introduced for discussion.

In conclusion I wish to present the following propositions, which it is believed are based on correct principles:—Dry dressings of the character above indicated in the treatment of cases such as those referred to are rational, comfortable, cleanly, easily applied, antiseptic and efficacious.

DISEASES OF THE ANTRUM HIGHMORIANUM; WITH REPORT OF TWO CASES.[1]

BY G. W. HUDSON, M.D.,

OF CAMDEN, ARK.

It was not until the knowledge of anatomy had made considerable progress that the existence of this cavity was known. Highmore, in the early part of the seventeenth century, was the first anatomist to give a correct description of this cavity. I hope it will not be thought presumption in me to call attention briefly to the anatomical outlines of this cavity.

It should be remembered, in connection with diseases of the maxillary sinuses, that this cavity is of considerable size, with walls of different thickness. In youth the walls are thick and the cavity small. After attaining its maximum size in the adult it is again diminished in old age. It is larger in males than in females. But in adult life its size varies in different subjects, and the larger the cavity the thinner the walls. The roof is formed by the orbital plate, and the thickness of the floor by the alveolar process; the inner wall or base presents, in the disarticulated bone, a large irregular aperture, which communicates with the nasal fossa. The margins of this aperture are thin and ragged, and consequently easily broken down in cachectic subjects with disease of the nasal cavity of a chronic, mercurial, or venereal nature.

Owing to the close proximity of the floor of the sinus to the alveola, the roots of the molars, bicuspid and cuspid teeth frequently enter the cavity; and if all the circumstances connected with diseases of the antrum could be ascertained, the majority of them

[1]Read before the State Medical Society of Arkansas, April 22, 1885.

doubtless have their exciting causes in a diseased condition of the teeth, gums, or alveolar process.

I have had several cases of disease of the antrum under my observation within the last two years, and with two or three exceptions, the exciting or premonitory cause was found in decayed teeth, or periodental abscesses. The most simple way to find out whether the teeth are the offending cause is to tap each tooth sharply with an instrument, when, if there is one that is diseased at the root or enters a diseased antrum, the patient will cry out with pain. There are other lesions of this cavity, caused by carelessness in extracting teeth, and by direct blows upon the face; or the patient may contract a violent cold, the excitement expends itself about the nerves, the Schneiderian membrane becomes inflamed, and by simple continuity of structure the lining membrane of the sinus becomes vascularly excited or congested to such an extent as to close the opening into the nerves. The mucus thus confined will, if not removed, sooner or later become purulent, and make its exit through the most dependent points of the cavity; which generally proves to be either through the nasal septum or the alveolar cavities, burrowing along the fangs, escaping around the necks of the teeth, and occasionally through the cheek. Cases are reported in which the orbital plate gave way and the pus found its exit somewhere along the lower eyelid. The cavity is also subject to some of the most formidable and dangerous growths, both malignant and non-malignant, that the physician or surgeon is ever called upon to treat.

The symptoms of a diseased maxillary sinus are varied. I have generally found the patient complaining of a heavy, dull sensation in the cheek; and at times of an acute lancinating pain, usually attended by some constitutional disturbance, high temperature and rigors. I wish to insist upon the importance of an early diagnosis, as it may be safely assumed that in a large majority of the cases of disease of the antrum, the danger to be apprehended arises more from neglect than from any necessarily fatal character of the malady. My experience warrants me in saying that the majority of the cases that have come under my care have been sadly neglected; and treated for everything but the real disease. The rule (unless the case is well marked) is to give the patient some simple remedy for nasal catarrh—or his case is pronounced one of facial neuralgia, and some favorite panacea prescribed.

The treatment of incipient disease of the antrum is generally very simple. Success depends in these cases (as in all others) upon an early and proper diagnosis. Remove the cause of offense, when possible, either by surgical procedure or judicious medication. The following case will illustrate what I have been trying to explain;

Mr. W., aged 58, merchant, had suffered a great deal from pains in his face and head. He had been under treatment almost constantly for five years for facial neuralgia. His teeth had been defective for ten years; frequently has abscesses around the superior molars of the left side. Gums swollen, a heavy, dull pain in the cheek under the eye, attended at times with fever and rigors. Nasal cavity dry and hot. Suspecting disease of the antrum, I advised the extraction of the decayed teeth, to which he reluctantly consented. After extracting the teeth, upon examination, I found the alveolar processes spongy and bathed in pus, which went to confirm my diagnosis,—then, with a triangular pointed instrument, the floor of the antrum was perforated through the alveolar cavity of the first molar; the withdrawal of the instrument was followed by about half a teaspoonful of muco-purulent fluid, showing conclusively that this cavity had been diseased for some time.

The treatment consisted in syringing out the cavity twice a day with warm water and a wash composed of compound tincture of iodine and Listerine—each time closing the opening with a pledget of absorbent cotton. This treatment was kept up about six weeks. At the expiration of this time he reported himself perfectly well, and twelve months have now elapsed and he has had no return of his former trouble.

Case 2.—Mr. K., aged 48, teacher, has suffered more or less with pains in the face and head for ten years. All of his teeth were extracted two years ago. The pain was of a heavy, dull character, extending from below the left eye to the eye, temple and ear, simulating neuralgia to a marked extent. For twelve months before he came under my charge, he had violent clonic contractions of the facial muscles of the left side, particularly of the masseter muscle, coming on every fifteen or twenty minutes and lasting eight or ten seconds—when the spasm came on he had to stop talking or eating, and catch his jaw and hold it until the paroxysm passed off. He also complained of a tickling sensation in the throat, as though something was dripping from the soft palate. There was no tumefaction of the gums or soft parts. The palatal and maxillary bones were to all appearance in a healthy condition. The muscles of the face were soft and somewhat relaxed when the paroxysms passed off. No appearance of paralysis. The lower eyelid a little everted; sight very good; hearing dull; tympanic membrane normal, though pale. The speech was more thick than usual. The mucous membrane of the pharynx and posterior nares was thickened and indurated.

With this array of symptoms, I did not venture upon a diagnosis, and my prognosis was not favorable to a rapid recovery. Suspecting, however, that a diseased condition of the antrum might be the exciting cause of some of the prominent symptoms, I advised trephining the sinus, to which he consented. The operation was commenced by making a crucial incision through the gums over the alveolar process near the origin of the second molar, and after desecting back the flaps, the floor of the antrum was perforated with a triangular pointed instrument, and a quantity of muco-purulent fluid escaped. The subsequent treatment of the cavity consisted in using astringent and detergent washes.

The muscular contraction was slow to yield. Electricity, both galvanic and Faradaic, was used, but only aggravated the paroxysms. A prescription of phosphide of zinc and strychnine seemed well suited to the case, and he improved rapidly on it. At the expiration

of about eight weeks he reported himself cured, and has no symptoms of his former trouble.

In making my report of this second case, I shall leave you to draw your own inferences, for I must say that some of the symptoms were very obscure, and I have been unable to account for them.

CHRONIC CONJUNCTIVITIS DEPENDENT UPON DISEASE OF THE INTRA-NASAL TISSUES.[1]

BY N. R. GORDON, M.D.,

OF SPRINGFIELD, ILLS.

There is a form of conjunctival disease which is dependent upon chronic inflammation of the intra-nasal tissues. I am not aware that any author has made special mention of this subject, but some have given a passing notice without particular effort to portray the condition of the nasal and ocular mucous membrane. The intimate connection existing between the conjunctiva and the Schneiderean membrane through the medium of the vaso-motor and sympathetic nerves, does not here require elucidation.

Observation has taught that irritation affecting the ocular mucous membrane is reflected to the nasal mucous membrane, and *vice versa;* this action takes place through the intervention of the vaso-motor nervous system. This conjunctival disease is chronic inflammation of the conjunctiva and the connecting tissues, accompanied by increased thickness of the membrane, especially of the palpebral portion, which is very slightly roughened, giving it somewhat the appearance of trachoma in a mild form. The tarsal cartilages, tarsal glands and ciliary follicles are more or less involved, with marked lachrymation and photophobia; pain is sometimes intermittent, more severe in afternoon. These cases are very chronic in character, and possibly in the majority of instances have been cases of trachoma, which may be the legitimate offspring of conjunctival inflammation; the trachomatous growth has either been destroyed by treatment, or not appeared as a sequel or complication of the inflammatory action. Usually the former condition exists.

My experience does not enable me to give any reliable diagnostic symptom or condition, which would aid in the discrimination between the idiopathic and sympathetic form of chronic conjunctivitis, that is, from the examination of the eye alone; but the diagnosis may be determined by the coëxistence of disease of the intra-nasal tissues. This disease of the intra-nasal tissue is usually a chronic rhinitis, of the hypertrophic character—mucous membrane exquisitely sensitive, with an abundant flow of thin, watery mucus.

The objective symptoms are those of acute rhinitis, with a chronic duration, or with the appearance as presented in so-called hay fever. A marked and important character of the conjunctivitis is its chronicity; it is not limited by weeks or months, but years; it yields slowly and only temporarily to the orthodox method of treatment of chronic conjunctivitis. The patient contracts cold with great ease and frequency, followed by an increase in the already copious flow of mucus from the nasal passages, also an increase in the grade of inflammation of the conjunctiva; often muscular rheumatoid pains, especially in patients beyond middle life.

The successful management of this form of conjunctivitis depends upon the proper treatment directed to the nasal passages. Dr. Noyes says that nasal catarrh often is causative of conjunctivitis, and when such is the case requires treatment. Many cases of chronic conjunctivitis that visit the oculist for months to receive treatment for the eye alone, may be speedily cured by directing the treatment to the nasal and post-nasal surfaces, thus making the ophthalmic treatment secondary in importance, as will be developed in the report of cases. Vaseline, in which there is incorporated a small amount of encalyptol and pinus Canadensis, is sprayed in the nasal and post-nasal passages daily, until the parts give evidence of improvement, which is usually about two weeks; then less frequent until the patient recovers.

The ophthalmic treatment consists in the application of plain vaseline, or in combination with boracic acid. This application, which is made by the patient, should be very free and frequent, three or four times per day, with considerable friction. Suitable systemic medication is prescribed according to the indications. Under this treatment I have seen rapid recovery take place of the most severe forms of chronic conjunctivitis, as is shown in the following cases:

Case 1.—Mrs. M., aged 53 years; eyes affected for seventeen years. During the last eighteen months of this time she states they were in the condition in which I found them at the time of her first visit to my office, Nov. 25th, 1884. The conjunctiva was intensely red and injected, and somewhat roughened from hypertrophy of papilla, and epithelium, tarsal cartilages and tarsal glands, and ciliary follicles were involved; great lachrymation and photophobia; the diffused light from the window caused an increase in pain. She was led by an assistant.

The intra-nasal tissue was found to present the condition characterized by chronic rhinitis with hypertrophy of the turbinated processes, copious flow of watery mucus from the nasal cavities, and increased amount of sticky, tenacious mucus from the post-nasal surface. The posterior wall of pharynx was ramified by enlarged tortuous blood-vessels, indicating the existence of chronic inflammation. She was treated daily for three weeks, at which time she was considered well enough to return home. About the middle of January, six weeks after the time she began treatment, she returned to my office, her eyes looking quite well, and but little indication of the former disease. Thus within the space of six weeks she was cured, and her eyes remain well to the present time.

Case 2.—Mrs. G. aged 50, eyes affected for twelve years. At the time of her first visit to my office, June 24, 1884, her vision was $\frac{20}{60}$, which condition she affirmed had existed for four or five years.

Examination revealed practically the same condi-

[1]Read before the American Rhinological Association, Lexington, Ky., October, 1885.

tion as existed in Case 1, as regards the ocular and nasal mucous membrane, except a slight degree of pannus, which would account for the great loss in vision.

This patient was under treatment for two months, when she was dismissed as cured. She recently informed me by letter that her eyes have remained well, that vision has improved, and she is now able to read ordinary print.

The above cases were both treated, prior to my treatment, by eminent oculists, from nine to twelve months each, without perceptible improvement; one had spent a term at Eureka Springs, Ark. Other cases could be reported, but it is unnecessary; these show, by the immediate and perfect recovery in each case, the efficacy and correctness of the treatment. The conclusions, therefore, as the above cases had persistently resisted the usual method of treatment for like conditions, and the rapid and perfect recovery from the treatment as above described, is positive evidence of the correctness of the diagnosis and value of treatment.

The local sedative treatment to the nasal mucous membrane relieved the irritation reflex of the conjunctiva, thus making recovery possible, which otherwise could not be, while the primary point of disease was disregarded.

THE RATIONAL TREATMENT OF PULMONARY DISEASES BY THE PNEUMATIC CABINET.

BY W. EVERETT SMITH, M.D. (HARV.)

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The use of the Pneumatic Cabinet[1] marks a new era in the treatment of lung diseases. Until within about thirty years, pulmonary consumption was almost universally regarded as an incurable disease. Indeed, it was only the occasional discovery of fibrous or cicatricial tissue and of calcareous masses in the lungs of patients who had died of other diseases, and in whose lungs there were no evidences of any recent inflammatory processes, that gradually led the medical world to believe that consumption could ever be cured. Yet still the fact remained that the vast majority of patients with destructive lung diseases died. The possibility of a cure being, however, conclusively established, the causes of these diseases began to be more carefully studied, with the hope of finally discovering some treatment directed to the removal of these causes.

Many have been the methods advised—the internal administration of wood naphtha, cod-liver oil, phosphate of lime, the hypophosphites, chlorate of potassa, benzoate of soda, various modes of counter-irritation, mercurialization, antimonial and other nauseating cough mixtures, vacuum cures, inhalations, etc., etc. All may have their modicum of value, but all have failed to work the desired cure because they were not founded upon a physiological basis. "It is a sound maxim in medicine," says Dr. Austin Flint, "that the therapeutical indications derived from science and from nature, as a rule, should harmonize, and I will add that the true principles of therapeutics are in accordance with the dictates of common sense."

Adequately, to cope with disease, then, it is necessary thoroughly to understand the functions and requirements of health; and it is suggestive of the value of the treatment of lung diseases by the Pneumatic Cabinet that "its development is in line with and depends upon physiological axioms. The life of lung tissue depends upon pure air; any interruption or irregularity in this supply means lung disease. Whenever, then, lung tissue is consolidated, as in the early stages of tubercular phthisis, or as the result of pleuritic effusions or empyema, or by direct inflammation, as in an unresolved pneumonia, the life and healthful activity of the respiratory system is seriously impeded. To expand these consolidated portions, and at the same time to deposit remedial and antiseptic agents in the inflamed lung cells, is the method and the theory of the treatment by the Pneumatic Cabinet.

The Cabinet is practically an air-tight iron safe about seven feet high, two feet wide and two and a half feet deep; large enough, in fact, for a patient to stand or sit in. In the rear is a heavy door fitted with bolts, but ingeniously opened and closed by a single turn of the hand. In front is a large plate glass window, through which passes a gutta percha tube having a stop-cock on the outside, and ending in a trumpet shape for receiving the medicated spray. The tube within the Cabinet is fitted to a flexible rubber mouthpiece for the patient. The patient enters the Cabinet and seats himself opposite the window. The door is closed and the air is rarefied by an air pump to the desired degree as represented by the fall of mercury in a barometer connected with the inside of the Cabinet. The degree of rarefaction is usually that represented by a barometric fall of from one-tenth of an inch to an inch and a half, each tenth of an inch being equivalent to an altitude of 100 feet as regards the removal of external pressure from the chest walls. The patient now inserts the inhaling tube in his mouth and compresses the nostrils with the fingers to prevent the escape of air through the nose; the stop-cock is opened and the outside air rushes in, carrying with it the medicated spray, which is atomized by a powerful cylinder of compressed air. The effect is a *forced involuntary inspiration* followed by a *forced voluntary expiration.* These respiratory movements are continued for several minutes, but upon the least fatigue the stop-cock is closed, the patient removes the tube from the mouth, and breathes the rarefied air of the Cabinet until ready for another application. The treatment varies in duration from ten to thirty minutes, and is repeated either daily or at intervals of two or three days, the number of applications varying, the greatest number being 105—a case of acute catarrhal phthisis in Dr. Williams' practice, which recovered.

The peculiar value of this treatment lies "in the *combination* of the medicated spray with the increased strength of the inspiratory movements." A much

[1] Introduced to the profession by Dr. Herb. F. Williams, of Brooklyn, N. Y. See article in New York Medical Record, Jan. 17, 1885.

fuller expansion of the chest is produced than is possible by an ordinary full inspiration, and at the same time the medicated spray being carried to the lung cells with much greater force than by a natural inspiration, is deposited in the very deepest and most remote portions of the lungs. Antiseptic air thus administered, must condense under the increased pressure due to the active expiratory effort, and be deposited in cavities or other diseased portions of the lungs.

At the same time one must not neglect to consider the beneficial effects of removing the external pressure of the atmosphere from the chest walls. In the first place, the active and passive movements of the respiratory act being reversed, the breathing takes place not merely with the ordinary *tidal* volume of air (which is carried by inspiration only to the trachea and larger bronchial tubes, reaching the lung cells in obedience simply to the law of the diffusion of gases), but also with the much larger volume of *complemental* air. When properly conducted therefore, a calisthenic action is produced which expands and develops even the healthy chest, and which is beneficial from a mere hygienic standpoint. Indeed, spirometric tests before and after a course of treatment, have demonstrated an increase in vital or volumetric capacity of from twenty-five to one hundred per cent., and a corresponding development both of chest measurements and of chest expansion. The removal of the external pressure causes moreover such an expansion of air in the bronchial tubes as forcibly to expel secretions, which may have so accumulated as seriously to impede the proper expansion of air vesicles. Finally, the influence of this treatment upon the circulation is very instructive and worthy of the most careful study. We know that in ordinary inspiration, arterial tension is increased while in expiration it is correspondingly decreased. In forced respiration, in a rarefied atmosphere, the proportionate difference between the blood pressure in inspiration and in expiration is increased, the main arterial pressure is increased, but the capillary blood pressure in the lung tissue is so far decreased as actually to decrease the liability to pulmonary hæmorrhage.

This modification of the capillary blood pressure can scarcely be other than beneficial to any inflammatory process in the lung tissue. The danger, however, should not be overlooked that with fatty hearts, aneurismal dilatations, atheromatous arteries and denuded arteries lying in cavities of the lungs, the most serious or even fatal injury might be done by a careless or ill-advised use of the Cabinet. This, however, is no argument against the value of the treatment; it is, in fact, a direct argument in favor of its power over lung expansion.

The principal agents thus far used in the spray have been the bichloride of mercury, iodine, carbolic acid and phenyl. "While the evidence," says Dr. Williams, "is strongly presumptive that the use of these germicides diminished the quantity of bacilli in several instances and obliterated them in others, the opportunity for following out this line of inquiry has not furnished sufficient data to permit an unqualified statement." To kill bacteria is one thing, to kill germs is another; and all evidence seems to point to the fact that it is impossible to keep germs out of the body. What then can inhalations do?

Several years ago, Prof. Tyndall made some interesting studies on this subject, and discovered that although by a continuous boiling he could not sterilize solutions, he could sterilize them by many successive boilings. Although he might not at once destroy the fully-developed bacteria, he could destroy their offspring while they were too young to produce a fresh generation. It is true that this may be only a theory, but it is a theory which will I think stand the test of experience and it is the theory underlying the treatment by antiseptic inhalations.

The materials which have been found most useful as antiseptic inhalations are not mere gases which are mingled with the inspired air and then pass out with it, but they are vapors of soluble bodies which are deposited upon lung tissue. Upon every moist bronchial tube, upon the walls of cavities and around, if not in, congested areas the inhaled vapor is condensed *to render the soil barren for germ growth.* "For if the difference between a soil fit and one unfit for bacterial growth is to be measured, for example, by the difference between the functional activity and resulting vital resistance of an upper and a lower lobe of the lung, surely it is not unreasonable to hope that by impregnating the pulmonary tissues with antiseptic material which we know renders them less fitted for the cultivation of bacilli, we may be able to make up the lacking resistance and so prevent the access of disease."[1]

For a further confirmation of the proposition that by discontinuous antiseptic inhalations bacilli can be made to disappear from the sputa, the reader is referred to a very interesting paper read by Dr. V. Y. Bowditch before the Suffolk District Medical Society, Nov. 11, 1885.

The effect of these inhalations in the Cabinet upon the *cough* depends upon the lesion in the lung. In nearly every case reported by Dr. Williams, and in all of the cases that I have been privileged to see, the cough and expectoration have been much reduced, there has been an increase of appetite and of weight, a tendency to a more restful sleep and a reduction of the fever. Indeed it can be safely claimed that where fever is due to the absorption of pus from a lung cavity accessible to the air, the introduction of an antiseptic will as certainly reduce the fever as will the washing of a uterus in puerperal septicæmia, or the cleansing of any suppurating wound. The cases that have thus far been reported have certainly given proof of the possibilities of recovery from serious lung lesions. Of three cases of unresolved pneumonia, Dr. Williams reports all cured; of seven cases of primary infiltration, six cured and one improved; of nine cases of acute catarrhal phthisis, four cured and one improved, while of nine cases of chronic fibrous phthisis, eight showed marked improvement.

The danger when looking at such a history of treatment is, that inconsiderate enthusiasm may prevent one from fairly weighing evidence, which must in all justness be impartially considered. It is our duty, however, as conscientious and progressive physicians,

[1] Solomon G. Smith, M.D., British Medical Journal, Feb. 23, 1884.

to investigate the subject carefully and without prejudice, patiently developing what is good in the method, and gradually learning what is its proper place in the healing art.

Thus far its greatest value seems to have been in the treatment of *early stages of phthisis*, in *fibroid phthisis*, in *chronic bronchitis*, in *emphysematous conditions* of the lungs, and in the *consolidations resulting from pleurisy, empyema, and unresolved pneumonia*. Upon the Continent of Europe, the applications of compressed air have proved of inestimable value in the treatment of *asthma*, and it is not improbable that similar successes may soon be recorded here. To meet these various indications, an ingenious mechanism attached to the Cabinet permits the operator at will either to rarefy the air within the Cabinet to a given degree, or to compress it to a given degree, or alternately to rarefy and compress it synchronously with the respiratory act.

Our only method of determining the merits of the treatment is by a careful study and a complete record of all cases. I trust to be able soon to report some original investigations upon the subject, studying it in its relations to and effect upon the healthy organism as well as the diseased.

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RUPTURE OF THE RECTUM, AND PROLAPSE OF THE SMALL INTESTINE.[1]

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I desire to present some notes on an unusual case of rupture of the rectum, and protrusion of a loop of the small intestine through the opening in the wall, and from the anus.

The patient was a woman of 50, suffering with melancholia of a very active type, accompanied with delusions largely relating to the pelvic organs; she often fancied herself pregnant, or being delivered; and her conversation, which was almost continuous during waking hours, was on subjects forbidden in polite society. She had a remarkable talent for making remarks exceedingly embarrassing to both the physician and the nurses. One result of her delusive ideas of her pregnant condition, was a disposition at times to assist nature by introducing her hand into her vagina or rectum, and pulling or working at those organs, so that a tendency to prolapsus of both uterus and rectum existed, and these conditions had been reduced more than once. The disposition to interfere dangerously with herself made constant watchfulness and some restraint necessary.

A few days since, when visiting the ward, the nurse called my attention to a mass of viscera which had descended from the anus, and an examination showed at once that it was not a question of a prolapsus of the rectum, such as had previously occurred, but that the protruding mass was made up of a part of the small intestine, and the appearance of omentum and the serous surface of the gut excluded a mere turning inside out. Only a rupture of the large intestine and the protrusion through the opening thus made of the small gut, could explain the condition. The rectum, with its internal and external sphincters, was in its normal condition, not even slightly prolapsed by the weight and tension of the protruding mass.

Ordinary modes of reduction were attempted, but with no success; the weakened condition of the woman from shock, and long-continued exhausting excitement, precluded surgical interference. Within forty-eight hours death resulted without any sthenic symptoms. The following is Dr. Blackburn's report of the autopsy:

"Mrs. ——, age 50. Chronic melancholia. On opening the abdomen a peritonitis of the folds of intestine in the pelvic region was revealed. The peritoneal surfaces in that region were agglutinated by recent lymph, and a moderate quantity of reddish serum with floating lymph was contained in the cavity. On further examination a rupture of the anterior wall of the rectum within the recto-uterine pouch (Douglas's) was discovered. Through this opening a large loop of the ileum, with its mesentery, had passed. No escape of fæces had occurred, as the intestine was adherent to the edges of the rupture. The portion of the intestine protruded began about six inches from the ileocœcal valve, and was about eighteen inches in length. The loop was discolored and covered with lymph. Some strangulation had occurred, shown by the thickening of the intestine and the discoloration of the part. Examination of the vagina and os uteri revealed an old laceration of the os, and erosion of the posterior lip of the cervix."

The only mention I have seen of a similar condition is under the head of hernia, as "Hedrocele," in Gross's "Surgery," where he quotes Dr. Uhde, of Brunswick; but no sack existing in the present case, it is doubtful if it is described under "Hedrocele."

[1] Read before the Medical Society of the District of Columbia, October 14, 1885.

MEDICAL PROGRESS.

MATERIA MEDICA AND THERAPEUTICS.

THE HIPPURATES OF LIME AND OF LITHIUM.—DR. V. POULET considers the hippurate of lime as the best preparation of calcareous salts for use in the system, and as especially useful in affections of the urinary passages; in affections of the liver; in diseases of the skin and mucous membrane, where they are dependent upon functional vices of the liver or upon lymphatism; in a great number of diseases of the alimentary canal, both of the stomach and intestine; in diabetes; and in chronic rheumatism, gout, etc.

In urinary affections, the subacute cystitis of the neck of the bladder yields satisfactorily to its use, with relief to the frequent desire to urinate, pain on urinating, etc. In certain cases where the urine manifests an abnormal alkaline reaction it becomes promptly acid again by the use of this drug. In every case, there is a return to the normal limpidity and a cessation of the presence of the mucous globules. It is quite as useful in urinary lithiasis from whatever cause, phosphaturia, uraturia, or oxaluria. If the theory of the

liver as the principal seat of the formation of uric acid, as a product of the disassimilation of the hepatic tissue, be correct, it follows that this drug, acting, as it does, through the hepatic gland, should be especially indicated.

In diseases of the liver it gives marked results, either by relief or cure, even when the symptoms are pronounced and decided, having progressed to the production of ascites and œdema of the lower extremities. This applies to subacute hepatitis, chronic hepatitis, catarrhal icterus, hypertrophic and even atrophic cirrhosis in its early stages, biliary lithiasis, certain functional disorders occasioned by hydatid cysts of the liver, etc. Surgery is benefited by this drug in traumatic or other urinary fistulæ, by modifying the composition of the urine.

In skin diseases, exclusive of those of parasitic origin, whether they come from the tuberculo-scrofulous, or the neuropathic diathesis, the hippurate of lime is useful, exercising an alterative and tonic action. The arthritides Dr. Poulet considers symptomatic of an affection of the liver—such are pemphigus, and certain urticarias. "With the hippurate of lime, *no more red noses.* In America, where this affection is so common and is the despair of a part of the population, there is no doubt but that this remedy will soon be appreciated at its proper value."

In dyspepsia and diabetes this agent seems to be especially applicable to inflammatory gastric or intestinal dyspepsias with flatulence and reflex phenomena commonly called sympathetic. It relieves the constipation very satisfactorily. In diabetes, as a simple solution, and with the aid of the ordinary dietetic regimen, it acts very beneficially.

In affections of the mucous membrane, it is admirably adapted to all cases of gastro-intestinal acidity, to ulcer of the stomach, chronic enteritis, mïguet, and to tympanites. In the diarrhœa of infants it produces remarkable results. In chronic rheumatism, gout, difficult dentition, etc., it is useful with phosphate of soda.

The hippurate of lithium, alone or combined with the hippurate of lime, serves admirably in the treatment of gout. The attacks of gout are lessened in intensity and frequency. The tophus is redissolved. The nodosities and chronic engorgements, in both the larger and smaller articulations, gradually disappear. —*Bulletin Gén. de Therapeutique*, Aug. 30, 1885.

SULPHATE OF IRON IN CATARRH OF THE STOMACH IN YOUNG CHILDREN.—DR. ROTH says, in the *Pester. Med.-Chir. Presse*, that one of the most important symptoms of catarrh of the stomach is the acidity of the contents of the stomach and bowels. The vomited matters have an acrid odor, and take on a greenish color; it is the same with the contents of the intestine. The parts soiled by these matters, the anus and scrotum, become red. The green color has been wrongfully attributed to the use of calomel. Absorbents have been used to destroy the acids with tonics to combat the catarrh. But too often these remedies have not responded properly. In such cases Roth uses sulphate of iron, which exerts a multiple and favorable action. It is especially a disinfectant. The stools change their color and lose their bad odor. As an astringent, the sulphate of iron contracts the turgid mucous membrane and coagulates the albuminoid substances; to have its proper effect, the use of the drug should be continued for several days. Dr. Roth uses the following formula:

Sulphate of iron, 0.1 gramme, mucilage of gum arabic and simple syrup, each 20 grammes; a coffee spoonful every two hours.—*Revue Mensuelle des Maladies de l'Enfance*, Sept., 1885.

ANATOMY AND PHYSIOLOGY.

INFLUENCE OF PILOCARPINE AND ATROPINE ON THE SECRETION OF SWEAT.—The Paris correspondent of the *British Medical Journal*, Aug. 1, 1885, states that M. JUDIC, in a communication on the influence of pilocarpine and atropine on perspiration, made before the Biological Society, stated that if a dog's spinal cord be cut between the eighth and ninth dorsal vertebræ, its paws become the seat of intense perspiration. This appears to prove that there is a spinal nerve-centre, which regulates the secretion of sweat. After dividing the sciatic nerve, if the peripheral end be stimulated, the corresponding paw perspires profusely. The sciatic nerve is simply a transmitting agent; it establishes communication between the medullary and the peripheral nerve-centres. If, instead of stimulating the peripheral end of the sciatic, the nerve be left intact, and pilocarpine be administered to the animal, the perspiration is equally intense. If the nerve be cut and pilocarpine administered, the perspiration is normal. It may, therefore, be concluded that pilocarpine does not act on the glandular elements, but on the nervous system. Atropine produces the opposite effect to that provoked by pilocarpine.

MEDICINE.

ACUTE ENCEPHALITIS OF CHILDREN.—The diffuse inflammatory affections of the cerebral tissue in children are enveloped in mystery, even if they ever occur. STRÜMPELL has investigated what he calls the acute encephalitis of children. He endeavors to assimilate infantile cerebral paralysis to the well-known spinal paralysis of children. Acute poliencephalitis is the counterpart of acute poliomyelitis. These affections attack the gray matter of the nervous system; on the one hand it is the cerebral cortex, on the other the anterior horns of the spinal cord. In autopsies of children dying with cerebral paralysis it is not uncommon to find cicatricial wasting of the motor areas of the cerebral cortex. These morbid conditions are sometimes congenital, when they are regarded, probably on insufficient grounds, as simple atrophy. Strümpell believes that many of the cases originate in acute inflammation of the gray matter. According to him, clinical experience further proves the analogy between the acute poliencephalitis and acute poliomyelitis. Strümpell has observed twenty-four cases of acute poliencephalitis at ages varying between four weeks and six years. Seven cases were under one year of age; eight occurred in the second year, and four in the third of life. The causes are

said to be obscure, but the progress of the cases is characteristic. The onset is rapid, with the general symptoms of fever and vomiting something akin to meningitis. Convulsions are observed on both sides of the body, and consciousness is lost. The initial stages may last only a few days, or may be prolonged for two weeks, or even two months. The author believes that death may happen in the first period, though he has no proof of this occurrence in his own experience. There is but little gradation between the febrile period and the second stage, or paralytic period. The general condition of the child rapidly ameliorates, and then the hemiplegia remains as a sort of surprise for the physician. The hemiplegia is more marked in the upper than the lower limb; it rarely attacks the face, but strabismus has been observed several times. Sometimes there is monoplegia only. Anæsthesia is not observed. The palsy does not remain at its worst, and though there is no rapid wasting of muscle, yet the limbs are arrested in growth. As a further contrast to the spinal palsy, the muscles, even if there be no definite contracture, are yet in a state of tension. Strümpell does not omit to mention the occurrence of symptomatic epilepsy, first unilateral, then general. He speaks also of the development of athetosis. There can be no misgivings as to the nature of the disease that Strümpell writes about, and even his description of its clinical aspects is not complete. But the chief interest to neurologists is the pathology of this so-called infantile hemiplegia. We think it not unlikely that some cases of this disease may own the same pathology as poliomyelitis acuta. *A priori*, we can think of no reason why this should not be the case. But the pathogeny of acute poliomyelitis is unsettled, though there can be no question that in some cases the signs of inflammation are too marked to be overlooked. A theory which requires careful consideration, and which might be tested whenever possible in the dead-house, is that of thrombosis of the veins of the cerebral cortex; this view has been put forward by Gowers, in his "Diagnosis of Diseases of the Brain."—*Lancet*, Aug. 29, 1885.

The Diazoreaction in Phthisis.—In reply to the objections raised to the diazobenzoic reaction, Grundries has made a large number of experiments on sixty-four tuberculous subjects. He first prepared two solutions:

Solution A.

Sulphanilic Acid	grm.	1.
Nitric Acid	"	10.
Distilled Water	"	1,000.

Solution B.

Nitrite of Soda	grm.	1.
Distilled Water	"	200.

To solution A he adds 25 grms. of solution B. He then mixes equal parts of this and urine in a test-tube, adds a few drops of ammonia, and sets it aside for twenty-four hours. The intensity of the reaction is measured by the color of the precipitate. In feeble reactions the precipitate is a clear green; in strong reactions a dark green. Sometimes there is a yolk-of-egg color, which seems to have no special significance. The superposed liquid has a reddish tint, the intensity of which varies with the color of the precipitate.

An intense reaction is a sign of advanced tuberculosis, when it occurs constantly. When it is absent the situation is more favorable. These tests are easily made, and are of great prognostic value.—*Zeits. für klin. Medicin*, Bd. VIII, Hft. 4.

SURGERY.

Sugar-Dressings.—Dr. F. Fischer gives a long and interesting summary of the results of this mode of treatment in the surgical clinic at Strasburg, as used by Prof. Lücke and himself. Finding the sublimate solution to be unsuitable in many cases, in the beginning of the winter semester of 1883–4, they tried a mixture of naphthalin and sugar in equal parts, and then a mixture of iodoform and sugar (one part iodoform to ten parts of sugar). The naphthalin-sugar was soon abandoned, the iodoform-sugar was confined in its use to such cases as presented tubercular changes. The use of sugar in preventing decay and suppuration in wounds is old; Galen refers to it, and Dr Fischer quotes various authorities since his time; he refers, among others, to Packard (*Am. Journ. Med. Sc.*, 1865) as using it in hospital gangrene. In his experiments he has kept hydrocele fluid eighteen days, preserved by a solution of sugar; blood serum eight days. Animal infusions that are alkaline in reaction become acid in four or five days, on standing. Mixed with a thick syrup they can be kept a month without showing bacteria or vegetable mould. This fact led to the conclusion that in an acid secretion bacteria could not live in any number; and consequently, that the use of sugar with the dressings, after the disinfection of wounds by the sublimate solution, would prevent any disturbance by foreign substances.

To apply the sugar to wounds, small bags of muslin were made, the muslin being prepared by boiling and soaking in soda solutions, and washed until it no longer gave an alkaline reaction; the sugar being placed in them, they were laid upon the wounds and covered with wood-wool. All the ordinary antiseptic precautions were taken, however, in performing operations and treating wounds, and before the sugar was applied the sublimate solution was used to cleanse the wound. The layer of sugar over the wound was made at least two cm. thick, then came gutta-percha paper, which with the muslin and wood-wool completed the dressing. This sugar-dressing remained eight to fourteen days undisturbed. If the secretion was moderate, the sugar retained it, if greater, it formed with it a crust; was the secretion excessive, new sugar sacks were placed in position and retained by folds of muslin.

The healing process in most cases went on without fever; a record of 38° C. was rarely reached. A temperature of 38° C. was a sign for the renewing of the dressing, even when the patient felt well. Granulations spring up quickly under the sugar sacks, and the wound preserves a healthy appearance. The number of cases so treated and recorded reach 202; of these five died. One was a case of erysipelas after amputation of the breast; a second died of

hæmorrhagic nephritis; a third, amputatio in studio septico, died in a few hours after the operation; the fourth and fifth with pulmonary phthisis. In extensive suppurations, such as phlegmons, empyema, etc., this dressing is not suitable, as the sugar is dissolved by the profuse secretion and causes much discomfort to the patients. Sugar acts admirably as a deodorizer in unhealthy wounds, ulcers of the leg, ichorous carcinoma, etc.; after thorough disinfection with the sublimate solution, the sugar being laid on thickly, after two or three dressings the odor is entirely removed.

He recommends the sugar dressing, that is so easily applied, particularly for all wounds closed by nature; for these healing by first intention; for ulcers in order to stimulate healthy granulations; and for all slight wounds, particularly of the hand and superficial contusions.—*Deutsche Zeitschr. für Chir.*, Bd. xxii, Hft. 3 and 4.

THE SURGERY OF THE LUNGS.—DR. TRUC, in a thesis discussing the present status of surgery of the lungs, shows that pneumotomy partial or total, practised antiseptically, is generally well endured by the different animals and is compatible with life.

In general applied to the treatment of tuberculosis, the operation has hitherto given deplorable results, while as an operation for secondary cancer of the lung, circumscribed and superficial, it seems useful and little dangerous.

The operation may be further advantageous:

1. In certain abscesses producing serious complications, their location being well established.

2. In circumscribed abscesses producing infection, their location being exactly determined.

3. In localized severe putrid bronchitis.

4. In rare forms of limited tuberculosis, represented by an insolated superficial cavity, the septic products of which occasion septic symptoms which directly endanger the life of the patient.

5. In large hydatid cysts, which are not spontaneously relieved, nor lead to the ordinary methods of cure.

6. In cases of intrapulmonary foreign bodies which have resisted ordinary means for their removal and produce inflammatory symptoms or destruction of the parenchyma, their locality being known with precision.

Dr. Truc further concludes that exploratory puncture, carefully made, is generally harmless, and frequently of great diagnostic value.

For the operation the thermocautery is to be preferred to the bistoury, as being less dangerous, and costal resection should be generally performed as a convenient means of opening large cavities, and for facilitating cure. As adjuvants to the operation, antiseptic irrigations seem always useful and frequently necessary. Uncombined with pneumotomy, antiseptic injections seem but little beneficial.

As to intraparenchymatous in tubercular diseases, when carefully made with fluids but slightly irritating and in moderate doses, they are well endured, and while they neither aggravate the local condition nor arrest the progress of the pulmonary lesions, they in some cases seem to ameliorate the symptoms of the patient. For making such injections, the axillary and subclavian regions are to be selected as being most accessible and least dangerous.—*Revue de Thér.*, Oct. 15, 1885.—*Med. News.* Nov. 7, 1885.

FRACTURE OF THE SPINE: RECOVERY.—At the meeting of the Border Counties Branch, on October 1st, DR. CRERAR reported the case of a man, aged 27 years, who was working six years ago as a miner in a coal-pit, and in a stooping position, after the manner of colliers, when a heavy piece of "metal" fell from the roof and struck him with great force on the back. He was carried home carefully, and Dr. Crerar first saw him lying on his back upon the floor. He had complete power over the lower limbs; but, on examining his spine, it was found to be fractured and partially dislocated, the injuries involving the eleventh and twelfth dorsal and the first three lumbar vertebræ. The injuries were very distinct. Dr. Crerar expected paralysis of the parts below the injury in a few hours; but, as the cord seemed to have escaped, a hope was expressed that the man might possibly recover. He lay on his back about eight months, nearly losing his penis at one time by sloughing, but he made a good recovery. The seat of the injuries was very apparent on October 1st, 1885, a good deal of callus having been thrown out. He had married since the accident, and had become the father of a family. He was strong and well, working every day as a coal-miner without any inconvenience. Seeing that so few who had sustained fracture and dislocation of the spine recovered, this case appeared to be one of considerable interest.—*British Med. Journ.*, Oct. 17, 1885.

OBSTETRICS AND GYNECOLOGY.

UNCONTROLLABLE VOMITING DURING PREGNANCY, CURED BY FEEDING THROUGH AN ŒSOPHAGEAL TUBE.—BRÜNNICHE, *Hospitals Tidende*, 1885, No. 29, reports the case of an unmarried woman with scanty, irregular menstruation, who, suffering severe gastric disturbance for two months, entered a hospital, and, under diagnosis of ulcer of the stomach, the possibility of pregnancy was denied. Soon after admission, vomiting became so severe that all food was rejected and inanition was threatened. Alimentation by means of an œsophageal tube was now resorted to, and broth, followed by cold water, before the withdrawal of the tube, was first fed to the patient without causing vomiting. Milk was then administered, and no vomiting being produced, was followed by bouillon, etc., with like favorable result. After five days an attempt to swallow food caused reappearance of nausea and vomiting, and the use of the tube was again necessitated. Pregnancy was now readily diagnosticated. In three weeks the use of the tube was dispensed with, and the woman discharged cured.

A significant fact in connection with the case is that it was only necessary to introduce the tube into the entrance of the œsophagus, showing that the location of the sensitive region, irritation of which occasioned the vomiting, was situated higher up in the digestive tract than the stomach.—*Centralbl. für. Gynäk.*, Oct. 10, 1885.—*Med. News*, Nov. 7, 1885.

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY.

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SATURDAY, NOVEMBER 14, 1885.

MEDICAL STUDIES AND MENTAL TRAINING.

In a recent number of the *British Medical Journal* are two "Introductory Addresses," delivered at the opening of medical schools in Great Britain. In themselves the addresses are worth reading and worthy of thought. By the strong contrast of views, however, they are still more apt to hold the attention and provoke comment. In both, the subject treated of with greater or less detail was the kind of studies most profitable for youths to pursue, and especially such as intended to make medicine their profession.

In one of these addresses MR. JONATHAN HUTCHINSON speaks plainly his own conviction that radical reform is needed in the choice of studies. He would make a distinction between the kinds of knowledge to be acquired by the people in general, and by those who have special aptitudes. The latter may follow with advantage almost exclusively a special line of study. The majority, not thus endowed with special aptitudes, should choose to learn that kind of knowledge which will be most fruitful to them, and should acquire as much general information, even at the expense of its being somewhat superficial, as possible. A choice in the kind of knowledge to be acquired must be made, he urges, because there is a limit to the powers of memory. And when this limit is reached, if an attempt be made to acquire more it is only accomplished by crowding out and losing something already learned. Upon this limitation of the human mind he dwells particularly, and urges on that account that the knowledge that we acquire should be carefully chosen; and often, if we do not wish to lose something already learned, we must abstain from taking up new and wholly independent subjects. He thinks that far too much time is devoted to the study of Greek and Latin; that "it would be a great gain if the dead languages were forthwith honorably buried."

In reply to points usually urged in favor of these languages, namely, that they tend especially to develop the mind; that they are keys to invaluable literatures; and that they are necessary for a sound comprehension of our own language, especially the terms of science, he says: "The study of language for the most part is a pure matter of rote memory, and encumbers rather than strengthens the mind;" that there are now abundant means for acquiring a perfect knowledge of ancient life, history, and literature without first learning the languages of the time. In regard to the last argument in their favor, he regrets its reality, but believes "a good vocabulary is sufficient. It is not necessary to study grammatical construction in detail." Even the modern languages he would not have acquired until they are needed for actual use by the individual. He looks upon them as burdens to the memory, and unnecessary burdens often. All language he regards as a means to an end, and not an end in itself; a means for the acquisition of knowledge. He would have all who do not possess special aptitudes for language and the studies dependent upon them, devote their time to the more fruitful studies of nature and man. How much better it is to understand the causes of some of the great events of French history rather than to know ever so well the irregular verbs of the language. "The one kind of knowledge is living, is in itself fruitful in incentives to sympathy, to action, and to vigor in social life; the other is, for the most part, dead and abortive."

In strong contrast to these views are those expressed by PROFESSOR E. O. SCHAEFER, of University College, London. The preparation which he looks upon as best for the man intending to follow a liberal profession, is the "classical" course so long looked upon as essential for the education of an English gentleman. For one intending to pursue medicine as a profession, he would have this course supplemented by a year or so devoted to the study of physics, chemistry, and biology, before the more purely medical branches are taken up.

The great difficulty in all past and in most present educational methods, is that all minds are put in the same mould, with the expectation that similar results or finished products will result. We might as well attempt to cast a statue in gold, silver, bronze, iron, and lead, and expect the mould to turn out exactly the same product with each metal. As with metals,

so with men's minds; there are the greatest differences in quality and character, which adapts each to form different products, and if each is properly fashioned and utilized for the production of that for which it is best adapted, we will obtain the best results. The study of the classics should not be demanded of any man who wishes to be looked upon as educated, any more than a study of science is demanded of all. A good, a liberal education does not consist in the study of any one prescribed course. What is needed by every well educated English-speaking person, whether he intends to study medicine or not, is a good, a full, a complete acquaintance with the English language. As much time should be spent in practically teaching the distinctions between English words, in pointing out shades of meaning, as is now spent in pointing out the ability of Greek and Latin authors to make these distinctions in their own language.

For those contemplating the study of medicine there is desirable, besides a training in study from books, in reading and acquiring knowledge by reading (and this is all-important), a training in observing and in the methods of scientific reasoning. Science, when properly taught, inculcates the most scrupulous exactness, veracity and attention to details; its methods of reasoning are those used most in everyday life. And almost every problem presented to the physician for his solution must be solved according to these methods. Undoubtedly the ideal physician should be a man of such breadth of mind that he can grasp, and such industry and ability that he can acquire much more than simply a knowledge of his profession. He should be conversant with literatures and with sciences. For the education of such a man a training in the classics is as necessary as a training in science. But how few there are of this quality and character, and why should all then be put through the mould best adapted to him. If they were, many years would be wasted; hard study and close application would not be indulged in, and therefore much mental training lost that might have been acquired had the studies rather been adapted to the tastes, talents and necessities of each student.

A thorough understanding of the nature of English words is needed by every English-speaking person. Therefore this should be demanded. But for the training of the mind, the memory, judgment, power to reason, those subjects should be chosen which will easily enlist the attention of the student, and thus help him to make the application necessary for the mental training. As means to an end, languages will be acquired with pleasure as they are needed. For the study of medicine there should be required of the applicant at the college door a good English education, and evidences of a well-trained mind, whether the training has been obtained upon classical models or not. In addition, as soon as a sufficient number of schools exist in this country suitably equipped for teaching physics, chemistry and general biology these should also be required before the study of the purely medical branches is undertaken.

"SUCCESSFUL CASES OF PULMONARY PHTHISIS" REPORTED BY DR. W. H. GEDDINGS, OF AIKEN, S. C.

In the *New York Medical Record*, of October 3, and 10, 1885, DR. W. H. GEDDINGS makes a report of thirty-eight cases of pulmonary consumption which are of such interest that we propose to consider them rather critically. They are cited as examples of recovery, and are indeed a most gratifying proof of the fact that pulmonary phthisis is not necessarily a fatal disease. Yet, we think that were one inclined to be captious, he would scarcely regard all of the cases as recovered. However, the decision on this point depends upon the length of time during which there is entire absence of symptoms; which is considered sufficient to constitute recovery, as distinguished from quiescence. Dr. Geddings seems to regard in this light a cessation of all symptoms for two years, since that was the shortest time noted in any of his cases. We have no desire to be hypercritical in this matter, yet it seems to us it would be a little more prudent to pronounce the disease quiescent when no more than two or three years have elapsed since the disappearance of the symptoms.

A careful analysis of these thirty-eight cases shows twelve in which less than five years has elapsed. On the other hand, in the majority of these twelve cases, the probability of permanent arrest is greatly strengthened by the fact that careful physical exploration of the chest revealed more or less diminution in the area of consolidation. While not inclined to assert dogmatically that a lapse of five years is requisite to the establishment of a case of pulmonary tuberculosis as cured, yet we would suggest that in forming a prognosis one should not lose sight of the frequency with which improvement occurs in consumption, even to a temporary disappearance of all symptoms. Furthermore, that very hopefulness and inclination to view their disease lightly to which Dr. Geddings refers may lead patients to overlook and omit to mention some trifling symptom which to the physician would be of ominous importance. Dr. Geddings undoubtedly employed every means to gain

accurate statements from those patients who had passed from under his personal observation, and if, perchance, unintentionally the individuals gave too much of the *couleur de rose* to their condition, he is in no wise to be held accountable. The remaining twenty-six cases are strong and gratifying, particularly cases III and VIII, in which the disease has been arrested ten and fifteen years respectively.

Let us briefly consider Dr. Geddings' cases from the standpoint of those features of the disease which Jaccoud regards as conditions of its curability. These conditions have already been stated at length in an editorial article in the issue of this JOURNAL of July 4, 1885. According to Jaccoud, the probability of a cure is directly proportionate to the duration and extent of the disease. The thirty-eight under consideration had manifested the first symptoms but a few months, as a rule, before coming under Dr. Geddings' observation; although in some the commencement dated back two years or more. And in all but three, the disease was unilateral, for the most part confined to the apex. With the exception of three cases in which cavities were demonstrable, the disease had not progressed to the stage of softening, and therefore presented the conditions most favorable for recovery. The three cases in which there were cavities demonstrated the correctness of Jaccoud's view, that even in the third stage, pulmonary phthisis is susceptible of arrest. Although all presented more or less fever and night sweats, in only thirteen was the temperature stated as having reached 100° F. or over; while the sweating disappeared with considerable readiness; conditions justly regarded by Jaccoud as favorable to curability. Copious expectoration was noted in only two instances, and in all the quantity of *sputa* was diminished after the patient came under observation.

Only a small percentage of the cases was complicated by diarrhœa or other digestive disorders, a circumstance also mentioned by the distinguished Frenchman as favorable. In a few there was a marked degree of emaciation, although in all there had been a loss of weight. The rapidity with which this was regained in several instances was truly astonishing. There was a striking absence of serous inflammations and other complicating diseases, with the exception of pulmonary hæmorrhages. Hæmoptysis or hæmorrhage was recorded in eighteen out of the thirty-eight cases. The very large percentage in which this occurred, as Dr. Geddings justly remarks, seems to show that so far from proving deleterious, hæmorrhage, when not copious enough to dangerously exhaust the patient, actually preserves against inflammatory extension of the disease within the lungs; a further coincidence with the opinion of Jaccoud.

Erethism or high nervo-vascular excitability, considered by Jaccoud as an unfavorable condition, does not appear to have been present in Dr. Geddings' cases, unless the rapid pulse-rate be an indication of its existence. In every instance the pulse was fast out of all proportion to the degree of the fever, remaining rapid in some instances even after the temperature had returned to normal. Acceleration of the pulse, however, is so uniformly present in tuberculosis, that A. Flint mentions it as one of the corroborative signs of the disease in its inception. In nine cases the fact of heredity was noted, and although it may have been a prominent factor in the causation of others, it is fair to presume that the most of them may be classed under the category of acquired phthisis, which is the form of the disease considered by Jaccoud to be most amenable to treatment. If the constitutional strength be sufficient to resist the first invasion, the disease is liable to break out again at any time, owing to the inherited diathesis. In this form of tuberculosis, therefore, the cure is but relative.

Altogether, the report of the cases under consideration is instructive and encouraging; the more so, since, so far as can be judged from the necessarily rather meagre details, the cases appear to fall under the category of those which, according to Jaccoud, are appropriately sent to stations of high altitude, of 3,900 feet or more, in Switzerland, and Aiken has a far lower elevation. It would be highly desirable if so skilful an observer as Dr. Geddings would study the cases which resort to Aiken with reference to determining and reporting the exact condition of those which are benefited by residence there. With definite knowledge as to the conditions on the part of the patient compatible with cure, either relative or absolute, it is certainly most desirable that as medical advisers we should also have precise, scientific data as to the climatic conditions, within our own land, that favor recovery in each case.

"HOW TO BUILD UP A MEDICAL SOCIETY."

Such is the title of a timely editorial article in a recent number of the *Maryland Medical Journal*, of which our only regret is that it was not longer. Our contemporary recommends that local societies should follow the good example of the Baltimore Academy of Medicine, which offers a prize for the best paper read before the Academy during the year. In addition to this, it is recommended that accurate reports

of the proceedings of a society be made when they are to be sent to various journals in the country for publication.

Of the two suggestions we regard the latter as the more important. A reward for the best paper is undoubtedly a stimulus to writing good papers. But the experience of our school days should remind us that comparatively few compete for honors and rewards. The fact that a paper, or a discussion of a paper, is to be published, is, we think, a greater incentive to careful writing and speaking than a reward. Be this as it may, the two things are by no means incompatible—the reward may be offered, and the "publication committee" appointed at the same time. It is reasonable to infer that the offer of a prize will bring out at least half a dozen excellent papers in a year in a society with two or three hundred members. But why not, at the same time, reward the member who gives the best discussion of a paper? In many cases the discussion is of more value than the paper itself. Americans are said to be ready speakers as a rule. If the saying be applied to the members of medical societies, however, it falls far short of the truth. Very many—the majority—of the printed discussions of papers, read before medical societies, are exhilarating to the last degree when compared with the memory of the verbal delivery. As a matter of fact, very few physicians are ready speakers, as shown by the hopeless floundering at annual banquets, and the usual distressing *finale*. One of the best debaters, best lecturers, and most pleasing man to listen to when on his feet, is an eminent American gynæcologist who was once accused of having taken lessons in elocution for the purpose of filling his lecture-room. It is interesting to know that he always lectures to packed benches, while his accuser can usually count his hearers without trouble.

It may be said that every man cannot be an orator. But medical societies have no need of orators; they need men who can make short, sensible, pointed comments on papers—and give place to others; they need men who can remember what they have already said, and what others have said, and who will not waste time in wearisome repetitions. They also need men who can appreciate the salient points of a subject or paper, and who can bring them out without linguistic ambiguity or ungrammatical attempts at flowery speech. There are such men, and the number is just sufficient to show what results might be expected if there were more. Still further, it must be evident that a speaker cannot interest his hearers unless he has a good idea of what he wishes to say—and a clear idea of his subject. Nevertheless, we not infrequently see men arise, to discuss a paper, having neither of these qualifications. It is not at all discreditable to preserve a judicious silence under these circumstances. It is not too much to say that a member of a society should invariably prepare his discussion of a paper—so far as possible—before gioing to the meeting of the society, unless he has the subject and his remarks literally at his tongue's end. Many who in private conversation show no symptoms of aphasia or other disorders of speech, seem suddenly attacked with amnesic aphasia, ischophonia and bad grammar when speaking in public. Their tongues are not sufficiently loose, while their statements are too much so; sentences and conclusions are alike *non sequitur*; they are extremely prodigal in the use of ill-chosen words, and exhibit a marked tendency to wander off into a labyrinth of side-issues.

In this connection we may aptly quote from the recent report of the Editor of the Chicago Gynecological Society to the Society: "Remarks made in the heat of discussion, are not always characterized by accuracy of statement. . . . Ideas are not always expressed *clearly*, *distinctly* and *adequately*. Notions are frequently *obscure* and *confused*. . . . Then there exists in the minds of many medical gentlemen a supreme contempt for the science of the formal or necessary laws of thought. . . . The American medical mind evinces a natural fondness for the universal proposition, affirmative or negative. Major premise, minor premise, and conclusion, are frequently in utter defiance of the laws of syllogism. Fallacies—logical and material—exceed, in number and degree, those described by such systematic writers as Sir William Hamilton and John Stuart Mill. The 'accidence and syntax' of English grammar is not always observed, and Dr. Campbell's canons are sometimes held in derision." This is certainly not a flattering picture, yet it is not overdrawn. The men who would not blush to see their extemporaneous remarks printed as spoken are few; and in the few must be included some who would not recognize the errors even in print.

What are the remedies for these evils? 1. There is a prophylactic remedy which can be directly applied only by the medical schools—the insistance upon a proper preliminary education for the study of medicine, which should include *English*, even to the exclusion of the cut-and-dried classical education. 2. Each medical society, which sends a report of its proceedings to the journals, should have a competent editor and publication committtee, whose duties should be: (a) to judge whether a paper has sufficient merit to be read in the society, thereby cutting off worthless papers. Some seem to have an idea

that the road to practice and reputation is smoothed and leveled by a large number of "papers." They have one for every alternate meeting of the local society, and their only regret is that the society does not meet every evening; (b) to send out official reports of each meeting, and to twist the discussions into plain English when possible (when not possible to omit them); (c) to send out abstracts or *résumés* of the papers to be read, in order that the discussions may be prepared previous to the meeting, as far as possible, and thus be more interesting and valuable.

One point more. Every physician should consider it his duty to belong to at least one medical society; and his second duty is to attend the meeting. Very many physicians seem to regard membership in a medical society as something accidental or incidental to professional life, rather than as a duty which each one owes to himself and his profession. For example, of the forty-three or four hundred regular physicians in Illinois, there are not two thousand who are members of medical societies. This is certainly a very bad showing for members of a "learned profession." But the same is true of almost every State in the Union. From one county in Illinois, with twenty-four regular physicians, we learn that "there is no medical society in this county. The profession is divided." The "divided profession" should remember that a society is for the good of the whole, as well as for the benefit of individual members.

We have received bulletins from the National Board of Health, containing an abstract from consular and other reports concerning the prevalence and progress of yellow fever, smallpox and cholera in Canada, Mexico, Cuba, the West Indies, Venezuela, England, Brazil, France, Spain, Italy, Russia, India, Ceylon, Japan and the United States. From March 4 to September 28, the deaths from cholera in Spain were 98,929 in a total of 267,689 cases, or 36.9 per cent. In Colombo, Ceylon, there were twenty-two cases and twelve deaths from cholera between August 22 and September 12. For the week ending October 22 there were twenty-five cases of yeliow fever in Havana, and twelve deaths.

Professional Vacancy.—By the recent death of Professor George Hunert, A.M., M.D., the chair of Theory and Practice of Medicine in the Medical Department of Wooster University, Cleveland, Ohio, is made vacant.

SOCIETY PROCEEDINGS.

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Stated Meeting, October 7, 1885.

The President, W. W. Johnston, M.D., in the Chair.

Dr. T. C. Smith read a paper on

THE UTILITY OF DRY DRESSINGS.

(See page 534.)

Dr. S. S. Adams said he thought Dr. Smith's treatment of eczema was admirable in some cases. In many, however, it would be difficult to keep the powder on the patient. Dr. Smith should first use a poultice in order to remove the crusts. If he puts powder on the crusts and then more powder, and keeps piling on the powder, he will soon have crusts like those of eczema impetigonoides. Dr. Adams thought the first step in treatment should be the shaving of the head in such a manner as to remove the crusts. Then if the doctor so desired he might apply his powder. The speaker, however, thought it better to use ointments. In his cases eczema had promptly yielded to ointments properly applied. He generally used the white precipitate, with cosmoline, or vaseline. The trouble usually consists in the difficulty of overcoming the whims and prejudices of both children and parents. In the treatment of intertrigo podicis he used calamine and oxide of zinc in rose water. As for varicose ulcers, probably rest and bandages did as much for Dr. Smith's cases as his powder. Dr. Adams doubted if there was any special efficacy in treating nipples with dry dressings.

Dr. Frederich was glad Dr. Smith had introduced the subject of dry dressings. The speaker thought powders were of much advantage in the treatment of the wet stage of eczema. All scabs, however, should be removed by softening with oil or poultices. In many cases starch alone has proved efficacious after all manner of ointments had failed. In the treatment of wounds iodoform stands pre-eminent.

Dr. J. M. Toner said that in the treatment of acute eczema the black wash had proved very efficacious in his hands. When there is danger of salivation from long continuance, he uses lime-water alone. He instanced a severe case which came under his observation some months ago, where great relief was afforded by such treatment.

Dr. C. E. Hagner said Dr. Toner's patient was a woman 45 or 50 years old, who had been under the speaker's care. The eruption came on suddenly and covered her face and arms. It was also on other parts of the body. On the second day her head was dreadfully swollen and her face presented the appearance of one suffering from erysipelas. Dr. Ford Thompson was called in consultation. Lead water was used, and anodynes, quinine and Fowler's solution were given internally. One morning, however, Dr. Hagner got a note stating that his services were no longer required, and he afterwards learned that Dr. Toner had cured the patient.

DR. TONER said he had cured many other patients with the same simple remedy. In the treatment of sores in the nasal passage, he put the patient flat on his back, and warming some of the black wash in a a spoon, introduced it gently into the nares.

DR. BERMAN suggested that if the doctor made the patient say "*he*" when the fluid reached the pharynx, none would enter the stomach.

THE PRESIDENT knew of no disease more difficult to treat than eczema. It had, indeed, become almost a reproach to the profession. The purpose of all treatment is to make a new skin. The disease is located in the papillary layer of the skin. There is hyperæmia of the blood-vessels, and a constant migration of white corpuscles, which results in an enormous manufacture of epithelium. No treatment will avail until these vessels are made to contract. The smearing of ointments or the dusting of powders will not produce this effect. The water treatment, which makes a pulp of the skin, removes not only the dead epithelium but also the young epithelium, and reduces the skin to a likeness to mucous membrane. It softens the cuticle and keeps it softened. When the eczema affects the hands and face the water treatment is still more difficult of application. But by the use of masks much may be accomplished. Strange to say, in many cases water seems to act as a poison, and increases the hyperæmia. This is remarkable, as all cases are the same histologically. The speaker thought in all cases constitutional treatment should be given, and every patient put in the best possible physical condition. Special attention should be paid to the digestion, both primary and secondary; and by these means many patients, particularly children, will be relieved. Teething infants will often suffer from an eczema which will disappear when dentition is completed.

DR. FREDERICH said, in regard to the water treatment, that Hebra had constructed a water-bed, in which he kept his patient's body constantly submerged in ever-changing water. If the water is found not to agree with him, he is taken out and covered thoroughly with starch. When the face and beard are affected the emplastrum vasel. plumbicum is applied, and the patient's face covered with a mask, the dressing being removed every twenty-four or forty-eight hours.

DR. SCHAEFFER said that ointments served a good purpose by excluding the air, even if they were not beneficial in any other way.

DR HAGNER said eczema was a catarrhal condition of the skin, and like every other catarrh required sedative or stimulating treatment, according to circumstances. No one remedy will cure all cases, and no inflexible rule of treatment can be given.

DR. S. S. ADAMS said the cases which proved so obstinate and which were said to have been treated by so many physicians, were usually not properly treated at all. The water treatments he considered difficult of application, and expensive.

DR. JOHNSTON acknowledged the difficulties of treatment by water. The doctor, too, has often to contend against the unwillingness of the mother or nurse to carry out fully the directions given.

DR. SMITH, in closing the debate, said he had reference to the moist stage of eczema when he spoke of using dry dressings. It is a mistake to suppose that the powder will confine the pus. It will force its way through the dressing or lift up the crust. He doubted if Dr. Adams could shave some of the scalps he had seen. He had treated sore nipples very successfully with dry dressings. He related a case where the patient, a cook, was severely scalded by hot soup. The application of dry dressings quickly relieved the patient, and in a short time he discharged the woman entirely cured with the exception of one or two places near the axilla.

DR. HAGNER said, in reference to the last case mentioned by Dr. Smith, that he had been called to see her and had been compelled to poultice and remove one or two large scabs from the breast, and after the use of an ointment the woman was finally cured.

DR. BUSEY asked Dr. Smith if he sprinkled the powder over the entire surface or simply around the edges.

DR. SMITH replied that it was only necessary to put it where there was a moist surface.

THE AMERICAN ACADEMY OF MEDICINE.

Ninth Annual Session, held in New York City, October 28 and 29.

(Concluded from page 525.)

THURSDAY, OCTOBER 29—SECOND DAY.

The Academy was called to order at ten o'clock.

A resolution expressing the sympathy of the Academy with Dr. H. P. Farnham, in his painful illness, was offered by Dr. H. O. Marcy, and adopted.

PRELIMINARY EDUCATION FOR MEDICAL STUDENTS.

The following resolution was adopted:

Resolved, That a committee of three be appointed by the President, to report at the next annual meeting, instructed to prepare a statement of the best preliminary education for medical students, and also a statement of the minimum attainments which medical schools should require of students before admitting them to the study of medicine.

It was also resolved to appoint a committee of two whose duty it shall be to report the requirements for a preliminary education of the various medical colleges in the United States and in Canada.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—Dr. R. Stansbury Sutton, of Pittsburg, Pa.

Vice-Presidents.—Drs. Lewis P. Bush, of Delaware; S. J. Jones, of Illinois; R. L. Sibbett, of Pennsylvania; and F. H. Gerish, of Maine.

Secretary and *Treasurer.*—Dr. R. J. Dunglison, of Philadelphia, Pa.

Assistant Secretary.—Dr. Charles McIntire, of Easton, Pa.

Pittsburg was selected as the next place of meeting; time, the third Tuesday in September, 1886.

DR. THOMAS J. TURNER, Medical Director U.S.N., read a paper on

MEDICAL EVIDENCE.

The *raison d'être* of the paper had its origin in the writer's duty in connection with the Naval Retiring Board. The positions of the medical members of the Board are that of an ordinary witness, that of an expert witness, that of a concurrent judge of both the facts and the law, but with the execution of the verdict the Board has no authority whatever. In the first instance the medical officer makes a physical diagnosis, in the second place he makes a rational diagnosis, based upon subjective phenomena; combining these, he arrived at a conclusion. On questions of science, skill, art, and the like, persons instructed on such subject-matters, known in ordinary language as experts, are permitted, from the necessities of the case, to give "matters of opinion" in evidence: and as to the necessity which permits the introduction of such opinions, each tribunal determines for itself at the time. Herein the expert differs from the ordinary witness who testifies as to "matters of fact." The boundary line where ordinary testimony ends and expert testimony begins is not always well-defined.

As regards opinions on medical questions, any one, at present, may be permitted to testify, the question of the special amount of knowledge being left to the jurors to determine. It follows from this that there is no evidence which varies so immensely as so-called expert evidence. It has been decided that a medical opinion may be received as evidence if it is based upon study without practice, or upon practice without study, and it has been ruled that it is not absolutely necessary that one should have studied or practiced medicine.

The opinions of medical men are admitted in courts, upon the condition of the human race thus: Is or was a certain person sick; upon the nature and cause of the disease; the cause of death; the cause and effect of an injury; the effect of medicine or of a particular treatment; the likelihood of recovery; the mental condition of the person; and upon the examination of the party whose condition is under inquiry.

It was the speaker's opinion that the term expert testimony was somewhat misleading, and he preferred the term "opinion evidence" as used by *Best* as preferable, for opinions may be admitted in evidence by those who could not be classed as experts. The test of the admissibility of opinion evidence seemed to the writer to be this: Has the expert witness any peculiar knowledge or experience not common to the world which renders his opinion, founded upon such knowledge or experience upon the subject-matter under inquiry, of value to the court in determining the truth of the matters at issue? The degree of credence given to opinion evidence should be founded upon the professional skill, the quickness of perception, the powers of discernment, the aptitude, the acquirements and the education, as well as the experience and observation of the expert in the matters upon which his special expert knowledge arises.

REPORT ON LAWS REGULATING THE PRACTICE OF MEDICINE IN THE UNITED STATES AND CANADA,

by RICHARD J. DUNGLISON, M.D., of Philadelphia, and HENRY O. MARCY, M.D., of Boston, was read by Dr. R. J. Dunglison.

He said that so little change has taken place within the last twelve months with reference to legislative restriction of the practice of medicine, that your committee might in a few brief sentences dismiss the subject with the statement of the actual work accomplished in this direction. The honest efforts of medical men and of others during the past year to accomplish creditable results in the States for the repression of quackery have been unabating, but in several cases, disappointment has been the only issue of their labor. Indiana and North Carolina are the only States in which any alteration in existing laws has been made. Your committee entered into correspondence with medical gentlemen in the different States with regard to the working of laws for the regulation of the practice of medicine, and their replies are submitted. The following is a synopsis:

From New York it was reported that the act of 1884 had not been effective in excluding from the profession grossly incompetent and uneducated men. In Massachusetts there is no satisfactory law.

In Pennsylvania, the registration act is executed about as well as any law of the kind could be without an executive head. It has stopped the non-graduated class from practicing.

From Michigan, it is reported that the present law is defective.

In Tennessee, there is no law regulating the practice of medicine.

In Ohio, the only law is one passed ten or fifteen years ago, requiring a diploma or a certificate from a chartered medical school. Several bills for regulating the practice of medicine have been proposed, but none have been adopted.

Wisconsin has adopted no law for the regulation of the practice of medicine.

Kentucky requires a diploma or a certificate from a State Examining Board. This law is working well.

Dakota last winter passed an act establishing a Territorial Board of Health, the function of which is to grant licenses to practice medicine and surgery in the Territory. There are, however, several difficulties in the satisfactory enforcement of this law.

Texas is practically without any law upon this subject.

In North Carolina, an act has recently been passed making it a misdemeanor punishable by fine or imprisonment, or both, to practice medicine in North Carolina without a license from a board of examiners elected by the State Medical Society. The results of this law have so far been satisfactory.

In New Jersey, the registration law has proven of little service.

Nebraska has a registration. While its results are not evident, yet it seems to be preparing the way for more effective action.

Iowa has no law regulating the practice of medicine.

Two years ago, Virginia passed a law establishing

a State Board of Examiners. This is working satisfactorily.

Maine has no law on this subject. In New Hampshire, the law regulating the practice of medicine has not accomplished very marked results.

In Maryland, the law works very badly.

In closing, Dr. Dunglison said: "From this sketch of medical legislation, the inference is fairly deducible that the legislation upon the subject of medical practice is not yet placed upon a sufficiently firm foundation to gratify the advocates of restrictive enactments, and that the obstacles to such healthful results are still operative, but not insurmountable."

DR. BENJAMIN LEE, of Philadelphia, read a paper on

HEALTH OFFICERS, ANCIENT AND MODERN.

The important position assigned to hygiene and State medicine during the past decade is an evidence at once of the advanced stage of civilization and of the dense and rapidly increasing population. It also indicates that long occupancy of the land by successive generations has at length overtaxed the regenerative and self-purifying energies of the earth, and that extraordinary methods have become necessary.

Reference was then made to the honors bestowed on the officers of public health in ancient Rome, and the high esteem in which they were held. To this was largely attributed the excellent sanitary condition of that city.

The second portion of the paper was occupied with a consideration of the organization of boards of health. The first point made was that in selecting the material for boards of health, politics, in the bad American sense of the term, should be rigidly excluded. Where it is possible to avoid it the members should not be elected by the people; especially is this the case in large cities.

Secondly.—Boards of health should be composed chiefly of physicians, but at least one member should be a man eminent among his fellows for prudence and judgment in trade and commerce, for doctors are, proverbially, bad business men.

Thirdly.—As it is desirable that there should be harmony of action and of sentiment between the municipal government and the board of health, there should be a representative of one on the other.

Fourthly. It is essential for the practical working of the Board that it shall employ a paid agent who shall devote as much time as is necessary to inspection and investigation of the sanitary condition of the locality, and carry into execution the orders of the Board.

Finally, every member of the Board should receive a fair and even generous compensation for his labor.

DR. S. N. NELSON, of New York, read a paper on

MICRO-ORGANISMS AND THEIR RELATION TO DISEASE.

Dr. Nelson began by saying that the importance of the subject, already much discussed, was the only apology offered for presenting it. That these minute organisms make up what they lack in size by the interest they are causing in the scientific world. That great numbers of observers are at work on both Continents in the solution of the germ theory of disease. Their history is related to that of spontaneous generation, to that of the fermentations, to the pathogeny and therapeutics of a great number of virulent and contagious affections, and in a more general manner to all the unknown, which, notwithstanding the efforts of modern science, still surrounds the origin of life and its preservation. The bacteria belong to the vegetable kingdom and are the lowest of organisms, being merely cells of a globular, oblong or cylindrical form, reproducing themselves partly by spores and by transverse division. The best authorities now adopt the simple classification into (a) bacilli, or the rod forms, and (b) micrococci, or the round forms. The first observer who recognized them was Leuenhoeck, as early as 1675. Their study has advanced with the improvement of the microscope, until now many forms are only seen by the best lenses, aided by special condensors. The more delicate and exact methods of the most recent observers with regard to their nature, show that there are many varieties of them, each of which has its own conditions of growth, and varies in its susceptibility to different temperatures and chemical reagents. Apparent identity of form does not necessarily indicate identity of nature. They may be cultivated in both solid and liquid nutrient media.

The theory of a causal relation between bactina and diseased processes has recently received a wide acceptation. In some diseases this relation is demonstrated, while in others it is presumed on the ground that bacteria are found in the blood and diseased products. It is not only necessary that the germs should be isolated and grown in pure cultures, but by inoculation the disease should be produced in healthy men or animals with a reproduction of the bacteria. Reference was then made to the various diseases that have been studied from this standpoint, and the present status of our knowledge was remarked concerning tuberculosis, cholera, variola, scarlatina, measles, diphtheria, erysipelas, etc. Dr. Nelson related some of his own experience in cultures of the micro-organisms of many of these diseases, with which he has made many thousands experiments in the last five years, both at home and in Germany, under the supervision of Prof. Koch in his laboratory in Berlin.

DR. ERNEST W. CUSHING, of Boston, read some

OBSERVATIONS ON THE RELATION OF BACTERIA TO CERTAIN PUERPERAL INFLAMMATIONS.

These observations were based on the results of examinations of the bodies of such women as died from these maladies at the general hospital at Vienna last spring. He called attention to the great difference between the customs and rules governing the obstetric assistants and students in Berlin and in Vienna. In the former city, every precaution is taken to avoid not only direct infection, but also any possible carrying of germs in the hair or clothing, as if bacteria were freely present in the air. In Vienna, although the possibility of so finding them is admitted in theory, yet in practice the assistants and students are allowed to be present at autopsies. Obstetric operations and laparotomies are performed

before the whole class, without spray, and the chief assistants give operative courses on the cadaver every afternoon, relying for safety on washing, bathing, and change of clothing. Practically, sepsis arising in the hospital is very rare, and the results obtained by avoiding direct infection through the fingers and instruments, were regarded by the speaker as an argument in favor of the view that puerperal fever is not an entity, the poison of which is carried about in the air and enters the system through the lungs, etc., but that such fevers are the result of the invasion and multiplication of bacteria, arising from infection of the uterus or abraded vagina, as a rule directly from hands, instruments or application.

Discussing the results obtained by the examinations above mentioned, the reader stated that the most frequent cause of infection was the strepto-coccus; the next the straphylo-coccus, with which is frequently associated the bacillus pyogenes fœtibus. The first occurs in chains not distinguishable from those of erysipelas, the cocci usually lying in pairs, each pair representing a link. The staphylo-cocci occur in bunches like those of grapes. One or the other of the above were found in all acute cases examined, and were present in the uterine or iliac veins. In pelvic abscesses they were found in the lungs and joints, and in fact wherever metastatic abscesses occurred. Microscopic preparations of the above and three specimen cases were described. Finally puerperal inflammations were compared to infected wounds. The powers of the system to resist, fence out and kill the invading bacteria when the latter are not continually reinforced, were emphasized, and an active hopefulness was advised in regard to treatment, which, to be successful, should be analagous to that of surgical wounds, *i. e.*, prompt removal of decomposing matter, evacuation of pus, cleansing and disinfective douches and drainage.

Dr. R. Stansbury Sutton said that while there was no question as to the success achieved by the use of antiseptics in general surgery, yet in abdominal surgery the best results so far had been obtained by strict attention to cleanliness, without the use of any antiseptic agencies. He agreed with Dr. Cushing that when the poison entered the abdominal cavity in laparotomy, or into the vagina or uterus in puerperal cases, the germs are not carried by the atmosphere, but by the hands, the forceps, ligature, or instruments. As far as abdominal surgery was concerned, he thought that all chemical agents could be discarded, but cleanliness should not be lost sight of. He then referred to the injurious effects which had at times resulted from the absorption of such agents through the peritoneum.

Dr. Henry O. Marcy related a case bearing on the introduction of antiseptics into the peritoneal cavity. It was that of a child four years of age, whose abdomen was filled with pus, in which the streptococcus was found. The pus was evacuated and the peritoneal cavity thoroughly washed out with bichloride of mercury solution. The patient recovered without a bad symptom.

Dr. Edward Jackson, of Philadelphia, read a paper on

MEDICAL LICENSES AND MEDICAL HONORS.

A comparison was made between the requirements of the medical colleges of this country when first organized and the requirements of to-day, and gradual lowering of the standard with the corresponding decrease in the honor conferred, was noted. While the population had increased twenty times, the number of graduates had increased five hundred times. Part of this increase is due to the fact that men who formerly practiced without a degree, now attend colleges and receive the degree.

In 1881 the medical diploma was put to a new use, and became a license to practice. The inefficiency of the registry law, as well as the lessened honor which attached to the medical degree, was shown by the fact that in fifteen hundred registrations only forty-eight were destitute of the doctor's degree, and these belonged to the poorest order of irregular practitioners.

The speaker thought it doubtful if any system of State license to purchase a certain calling should be looked on with favor. If adopted, it must be removed from all possibility of lowering competition, and surrounded by every guarantee of honest enforcement which disinterested examiners and full publicity can give.

A paper entitled *The Physician and his Patient*, by Dr. J. D. Kelly, of Utica, N. Y., and one by Dr. Lewis P. Bush, of Wilmington, Del., on *The Physicians of Delaware in the Eighteenth Century*, were read by title.

The President-elect was then introduced, and made a brief speech.

The Academy then adjourned.

MASSACHUSETTS MEDICAL SOCIETY—SUFFOLK DISTRICT.

SECTION FOR CLINICAL MEDICINE, PATHOLOGY AND HYGIENE.

Stated Meeting, October 14, 1885.

The Chairman, R. P. Edes, M.D., in the Chair.

Dr. Morton Prince, stated that the title of his paper at the last meeting of the section should be amended so as to read "Friedreich's Disease."

ELECTION OF CHAIRMAN.

The chairman announced that the first business to come before the section was the election of chairman for the ensuing year. A ballot was accordingly taken which resulted in the election of Dr. F. I. Knight as Chairman of the Section.

Dr. Philip Coomes Knapp exhibited a patient with

PSEUDO-HYPERTROPHIC MUSCULAR PARALYSIS.

The patient, a boy of 6, was born in Boston, of German parentage. He was sent to the Boston City Hospital September 21st, by Dr. Broughton, of Jamaica Plain, from whom, and from the boy's parents the following history was obtained.

Family History: A full history of his father's

family was not obtained; on his mother's side two cases of phthisis were reported, but no evidence of any neurotic history could be obtained. His parents are healthy. He himself is the youngest of eight children, the rest of whom are well. Four other children died in infancy of "water on the brain," one also having cholera infantum. The patient was a very feeble child, too weak to nurse, and had to be brought up on the bottle. During his first year he had diarrhœa much of the time, and seemed very delicate. When he was a year old, he had whooping-cough, attended with severe and frequent convulsions; he had convulsions at intervals for two months, once having seven in one night. After that he recovered, grew stronger, and has seemed healthy ever since, except for his present trouble, and for an illness of two days when he was 2 years old, "which seemed like water on the brain." When he began to walk, it was noticed that his left leg gave out at times, and he would sometimes fall. His legs were very fat, much fatter proportionally than his thighs, but at present his mother thinks the contrast is not so marked.

About a year ago, without any signs of illness, his parents noticed that he had more difficulty in walking. The trouble came on very slowly and gradually. He could not walk as well, and when out with the other children it was noticed that he could not run, and that a very slight push would knock him down. If he walked much he had a tired feeling in his legs, but he never had any pains in them, nor any peculiar sensations. The family for some time have laughed at him for "sticking his belly out" as he walks and stands. He has not been able to go up stairs well; when he does so, he pulls himself by the banisters or takes hold of his knees, having much difficulty in getting up. He puts the left foot first, they say, in going up stairs, and the right in coming down, the right leg seeming weaker. He never has headache, and sleeps well nights. He is quick-witted, good-natured and always happy; he answers questions readily, without any impairment of articulation, and seems more than ordinarily intelligent. He has not yet, been to school, partly from his difficulty in locomotion, and partly for fear that the larger boys will knock him down and hurt him. He has never had any serious cough, nor any dyspnœa or palpitation. He has a good appetite, eats everything, and has no trouble from indigestion; his bowels are regular. He has no difficulty with micturition.

Present Condition.—The child is of medium size, fairly developed, not very well nourished. The skin is pale and translucent, the subcutaneous veins are quite apparent. Their is no erruption or marbling of the skin. The head is rather large and square. The pupils are of medium size and react well to light; the eyes were examined by Dr. Wadsworth and the optic discs were pronounced normal. The eyes, face lips and tongue move naturally. The tongue was clean. Examination of the chest was negative. There was no impairment of tactile sensation. There were no signs of vaso-motar disturbance in the skin, which showed no special difference of temperature to the hand in various parts. There was no ataxia in the movements of the hands. The patellar reflex was absent and there was no ankle clonus; plantar, abdominal, and epigastric reflexes present. No tenderness over the spine or nerve-trunks.

There was no very great hypertrophy of any group of muscles. The facial muscles showed no marked atrophy or enlargement, and he could move them without difficulty; the expression of the face, however, was very peculiar, the eyebrows were elevated, the eyes staring and prominent, the mouth often a little open, and the lines of the face were not marked, and there was but little play of expression. His father, however, had noticed no change in this respect. The muscular development of the upper part of the body was rather poor. The arms were small, but there was no atrophy or hypertrophy that would strike the eye. The latissimus dorsi and pectorals were poorly developed, yet corresponded fairly to the other muscles. The infra-spinatus muscle filled the infra-spinous fossa completely, but did not feel hard. The deltoid felt rather firmer than some of the other muscles, the triceps was of good size and decidedly harder than the biceps; the muscles of the fore-arm were also firm. There was no atrophy of the thenar muscles. The glutei were unduly prominent. The thighs were small, the quadriceps felt flabby. The calves were large and very hard and firm. Although the calves were not unduly enlarged for a healthy boy of his years, they were much enlarged in proportion to the other muscles. Circumference of the thigh in the largest part 10 inches, of the calves 8⅞ inches.

The child stands with his feet well apart, his shoulders back, his abdomen very prominent, his arms semi-flexed, abducted, and carried a little backward. His scapulæ stand out in a wing-like fashion from the chest wall. A plumb-line dropped from the spinous processes between the scapulæ, clears the sacrum, but not the buttocks as he stands erect. His gait is decidedly waddling, especially when he runs. His grasp is not very strong, but it is fair for his years. His arms show no special loss of strength. When he stoops over to pick up anything, he has much difficulty in straightening up again, and usually helps himself by putting his hands on his knees and throwing his body back, although he does not climb up his thighs much, if any. When he is put on his back and told to get up, he first rolls over on his belly, then he lifts himself up on his hands, straightens his legs, walks up to his hands, then he gets hold of his knees, pushes himself up, and throws his body back in precisely the manner described by Gowers. He cannot bend his knees and rise up again, and, if he stands on one leg and a forcible attempt be made to bend the knee, he goes down in a heap. He also goes down suddenly when he attempts to sit. His favorite way of going up stairs is to creep up on his hands and knees; if told to walk up, he prefers to get hold of the banisters and pull himself along. If made to go up without taking hold of anything, he has very great difficulty, even with stairs of a very slight rise, and sometimes he requires help. He always puts his left foot up first and pushes himself up by his knees. If told to put the right foot first he has much more difficulty, and often fails entirely to

get up. He can rise up on his toes very well, even on one foot, and he can bring his heels squarely to the ground. Dorsal flexion of the foot is not quite so complete as normal, but it is impossible to say whether it is due to a weakness of the flexor groups or to a slight contraction of the gastrocnemii.

An electrical examination was made by the induced current, but it caused so much pain that a complete and careful examination was not made. The deltoid, biceps and extensors of the arm react feebly to a tolerably strong current. The gastrocnemii and glutei react to a painful current, the full strength of a Fleming and Talbot battery, freshly filled. The tibialis anticus react very little, if at all, but the pain of the application made the child so restless that it was impossible to observe the reaction carefully. The quadriceps showed absolutely no reaction to the strongest current.

The boy has been given cod-liver oil and syrup of the iodide of iron, and directed to come to the out-patient department three times a week to have faradism applied.

Dr. J. J. Putnam remarked that often in the earlier stages of this disease the muscles of the upper extremity appear to be enlarged, and firmer than usual, sometimes seeming to be actually hypertrophied. The deltoid frequently presents the appearence of hypertrophy at this stage, and the muscles of facial expression are much more prominent than usual. The facial expression sometimes undergoes a marked change from the change in volume of the affected muscles. The gastrocnemii are often not weakened at first, but are actually stronger than normal. The disease seems to consist at first in a variation of the developmental force and direction, rather than in an actual degenerative process located in the spinal cord.

Dr. Gowers has made many examinations of the nervous centres in this disease, but has not always succeeded in detecting pathological changes in these structures. In one case he discovered a portion of muscular tissue within the spinal canal.

Dr. C. F. Folsom read an elaborate and very interesting paper upon

GENERAL PARALYSIS IN THE PRODROMAL PERIOD.

The patient was a clergyman who had always been well until recently, when he is said to have been affected with intermittent fever for which he is still taking quinine. It has been noticed that within the past year his disposition and character have undergone an unexplainable change, and that his sermons are quite rapidly deteriorating in excellence of thought, as well as in excellence of diction and purity of composition. The patient is himself aware of a change in this direction, but considers it due to a lack of energy upon his part, claiming that he might now produce equally good discourses if he would but make the necessary effort. He is, however, very well satisfied with his present sermons, but often preaches his old ones, as he considers them "too good to be lost." He is desirous of extending his usefulness, and has at times "exchanged" with other clergymen. On a recent occasion he preached in a strange church and made a very favorable impression. The congregation was accustomed to but one service on Sunday, but this clergyman thought that his sermons were so good, that he announced a second service, which he laughingly states was attended by *one* person. He is not at all disturbed by any embarrassment of circumstances, but seems quite satisfied with whatever occurs. He wrote to Dr. Folsom making an appointment, which he found he could not keep, and sent a timely note asking for a change of appointment to some more convenient time. Upon being asked to write a page of ordinary paper he was quite at a loss what to say; when he was asked to write the text of his sermon the day before, he was utterly unable to recall it. He was equally unable to remember a clause or idea from the sermon, or anything connected with the services of that day. Upon removing his garments for the purpose of a physical examination, it was observed that he wore two starched shirts, one outside the other. When asked why he dressed thus, he said that the outer one was the clean one of the day before, and he put it on in order to prevent it from becoming crushed by being placed in his valise. When asked why he did not lay the soiled shirt into the valise when he took the clean one out of it, he seemed to think that this would be a good idea, but he himself had not been able to think of any way, except to wear the one shirt outside the other. He several times made the remark that his urine was scanty owing to some disease of the liver. When it was suggested that the kidneys were the organs by which the urine was secreted, he seemed to be aware of his mistake and was amused that he should have made such an error. He complains of ringing in the ears and some degree of pain in the head which he attributes to the quinine prescribed for his "malaria."

His handwriting has changed to a marked degree within two or three years, and now presents the tabetic character quite distinctly. His present photograph by itself is not remarkable in any way, but compared with those of three and five years ago shows extensive changes in the expression, the facial outlines having become much less striking to atrophy of the muscular structures of the face, by which the countenance is changing in the direction of imbecility. Speech is still fairly good, though when fatigued or confused, the utterance becomes very slow, and the patient is often unable to pronounce words of several syllables without repeated efforts. Although a clock was within plain view, the patient would have missed his railway train had he not been reminded that it was time to go; upon which he made his arrangements in the most exemplary manner and left for his home. After a period of complete rest, he was again seen, when the symptoms of nervous derangement had so far disappeared that the most searching examination was necessary to detect the signs of any degeneration of the nervous structures. Only when the patient became somewhat fatigued did the signs of paralysis become evident.

These early and faintly marked symptoms are more carefully recorded in this case, and special attention is directed to them from the fact that they represent to some degree the "prodromal stage" of general

paralysis, a period in the history of the disease, which the physician is seldom able to observe, as the symptoms at this time do not usually attract the attention of the patient or his friends; and medical aid is first summoned at a much more advanced stage of the malady, when cerebral changes have already occurred, and the case is hopelessly incurable. If anything in the way of treatment can be of any avail it must be employed in the earliest stages of the disease. The diagnosis of general paralysis once established, our prognosis in all such cases is at present invariably and unalterably hopeless. If any benefit is ever to be gained in this disease from therapeutic measures, it must come from treatment of its earliest stages before cerebral degeneration has occurred.

DR. JELLY stated that he could add very little to the complete description of this forlorn disease which had been given by Dr. Folsom. The early recognition of the disease, and the study of the family history and individual traits are of the utmost importance. This was forcibly illustrated in a case coming under the speakers personal observation. in which a wealthy and influential merchant had for two years been noticed to become gradually more and more erratic in business, and to make foolish and extravagant errors, and unaccountable mistakes. He was adjudged to be in the commencing stage of general paralysis, the stage of insane grandeur, and the friends were advised to remove him from business and to secure for him repose and perfect relaxation.

Before the nature and extent of the disease was appreciated by the patient's relatives, however, his entire fortune had been wasted, and when he was finally placed under medical care, his family were already in the depths of poverty. The patient was not benefited by treatment, but the disease rapidly advanced from the exaltation of the first stage to a condition of permanent and hopeless dementia.

DR. J. J. PUTNAM said that while his own experience brings him in contact with comparatively few patients with general paralysis, yet he has been struck by the surprisingly large number of cases of this disease which have become known to him. There is no doubt that many cases exist which are entirely unsuspected until some painful or unsuspected event directs special attention to the individual, when the disease is at once distinctly recognizable. The statement of Dr. Folsom, that in many true cases of the disease there is astonishingly little which can be discovered in the way of positive symptoms, is unfortunately true. In many cases absolutely nothing can be detected, upon which to base a sound diagnosis; and doubtless, oftentimes normal traits of individual character are ranked as features of the disease.

DR. PUTNAM asked with how great a degree of certainty can many cases be diagnosticated?

DR. FOLSOM replied that in many patients the symptoms of this grave disease are very obscure. They may consist of three elements: diminution of muscular power; diminution of mental vigor, and derangement of the vaso-motor functions in the slightest degree. When notable changes in character and disposition occur, between the ages of forty and fifty, after the adult character of the individual may be supposed to have been firmly established. the indications are strongly in favor of general paralysis Symptoms often entirely disappear from observation for a period of many months, but again recur after some trivial cause, like loss of sleep or overwork. A sudden change in character and disposition in a vigorous man, without other explanation, is almost invariably indicative of general paralysis.

DR. JELLY asked if the prognosis is always necessarily so bad as has been supposed?

DR. FOLSOM replied that he had never seen a cure in any case. There is no known record of cure in this disease. The prognosis is entirely hopeless. The therapeutics of this disease offers no encouragement at the present time. The whole question of treatment is in a most unsettled and unsatisfactory condition. The subject is in about the same condition as was that of pulmonary tuberculosis some fifty years ago. Cases generally come under the observation of the physician at too late a period, when organic changes have already occurred in the brain, and degeneration of the nervous and muscular structures have already taken place. At this stage no known method of treatment has ever been of the slightest avail.

(*To be concluded.*)

DOMESTIC CORRESPONDENCE

NEW YORK LETTER.

(FROM OUR OWN CORRESPONDENT.)

Surgical Practice in Bellevue Hospital—Wiring the Fractured Patella—A New Serre-Nœud—Charity Hospital Training-School for Nurses—The Anti-vaccination League—Cremation—A Circulating Library for the Blind.

At the meeting of the Academy of Medicine, on October 15, the paper of the evening, which was a very satisfactory one, was by Dr. Stephen Smith, on "The Comparative Results of Surgical Practice in Bellevue Hospital." He thought that there was perhaps no better place in which to test the progress of practical and operative surgery than the wards of this old institution, since it had within its walls and its immediate environments all the conditions that in modern times are regarded as unhealthful and unsanitary. It was built, he said, between the years 1811 and 1816, on the made lands of East River, without drainage or adequate sewerage, and without regard to ventilation. During nearly three-quarters of a century the sluggish tides have ebbed and flowed through the sodden soil of its foundation, depositing far more filth than they have removed; and since its occupation it has been used as a prison and an almshouse, as well as a hospital. Moreover, its wards have, from time to time, been crowded with patients suffering from all forms of contagious and infectious diseases, and it has been the common receptacle of typhus and typhoid fevers, small-pox, puerperal fever, cholera, and yellow fever.

Although many changes have been made in its interior, yet the great and most serious defects of loca-

tion and construction have remained unaltered. The surgeons of Bellevue, as Dr. Smith rightly said, have always ranked among the best in the city, and as much of their practice in hospital has been public and clinical, it must be assumed that they have endeavored to the best of their ability to illustrate to their classes the highest type and best results of the science and art of surgery of their day. And yet the practice of surgery in Bellevue Hospital has within the past few years undergone so complete a revolution that one of the older surgeons would scarcely realize that he was in the same hospital where he had practiced a decade ago. "He would see with horror operations fearlessly performed that he had formerly regarded as without the pale of legitimate surgery. He would witness procedures in the after-treatment of operations which would seem to him to be fantastic, and even ludicrous. His astonishment would be extreme on finding that the first week passed without fever, and that no change in the dressings had been made. But perhaps the most remarkable feature of modern practice would be the rapid convalescence, and final complete recovery, without complication or exhaustion, of ordinary operations, which formerly gave so much trouble and anxiety."

Before the use of anæsthetics, the most important general principle governing the operator was celerity; but now, Dr. Smith asserted, the one thought and purpose that occupies the mind of the surgeon is recovery without suppuration; and to this end all his preparations are made, and the entire procedure subordinated. Having described the details by which this is accomplished in operations in general, he passed in review a number of special methods of treatment and operations, such as the treatment of compound fractures, amputations, excisions of the larger joints, the ligation of large arteries, and the treatment of cold abscesses. He then went on to say that perhaps the most marked illustration of the great improvement in operative surgery in Bellevue may be found in the unvarying success which attends the treatment of simple fracture of the patella by wiring together the fragments. "It was eminently fitting," said Dr. Smith, "that this operation, so novel and startling as to be received with almost universal ridicule by older surgeons, should have first been proposed by the great apostle of antiseptic surgery. By proposing and successfully executing this operation he expressed his faith in his teachings in form more emphatic and convincing than language could. This procedure does, indeed, embody the very spirit and genius of the surgery of to-day, viz.: boldness to audacity in the conception of an operation, and conservatism the most absolute in the method and means employed in executing it. And yet this operation is now accepted as legitimate in Bellevue, and is of almost weekly occurrence in one or the other of its surgical divisions. And no operation, so inherently dangerous when performed according to old methods, has ever proved more successful. It has now been performed in more than a score of cases without an unfavorable result."

The paper concluded in the following words: "In reviewing the surgical practice of Bellevue, it is not difficult to determine the essential feature of the present methods as compared with those of the past. Cleanliness is the one great object sought to be attained in all operations. Whatever may be the final conclusion of scientific students as to the cause of putrefaction in wounds, practically it is determined that the surgeon may, with the most absolute certainty, protect an ordinary open wound from suppuration. To effect this object, he finds that he has simply to secure perfect cleanliness of the wound. The agents now relied upon and found efficient are: 1. Soap and water to external parts. 2. Carbolic solutions for instruments. 3. Bichloride solutions to all surfaces and tissues. 4. Iodoform for external dressings. We may summarize the conditions regarded as essential to success as follows: *A clean operator; clean assistants; clean instruments; clean dressings.*"

At the last meeting of the New York County Medical Association, held October 19, the principal paper of the evening, by Prof. Frederic S. Dennis, of Bellevue, was on the operation of opening the joint and wiring the fragments of bone together in fracture of the patella referred to in Dr. Smith's paper. At the outset he said that, while Sir Joseph Lister had recently revived this procedure under conditions which ensured for it a most brilliant future, it was not to be forgotten that it was of American origin, having originally been performed by Barton, of Philadelphia, and in this connection he paid a fitting tribute to the genius and skill of American surgeons in general. Having stated that he desired in the communication to present all the arguments which had been adduced both for and against the operation in question, he went on to say that there were at the present day two classes of surgeons who represent professional opinion. The first considered the operation perfectly justifiable, believing that when it was performed with proper antiseptic precautions, it was unattended with danger. It was true that up to 1883, out of some forty-nine cases, there were two deaths, while in six instances it had been followed by suppuration and anchylosis; but since then the results have been materially better. Out of more than fifty cases reported, there had been no death, and in only three, one of which was a compound fracture, had there been suppuration.

The second class of surgeons referred to held that the operation was unjustifiable on account of the great risk involved in opening the joint, and claimed that equally good results could be obtained by the older methods of treatment. Dr. Dennis was fully convinced himself that the modern antiseptic operation was in every way preferable, and could, as a rule, offer the results of osseous union and a perfect joint, which every surgeon knew the difficulty of obtaining by any of the former methods. Under proper restrictions, he believes it to be an ideal operation.

One great reason why bony union was so rare when these methods were employed was, he thought, because the layer of tissues in front of the patella almost invariably gets in between the fragments; and he mentioned the following three arguments in favor of the newer and bolder treatment. *First.* The ab-

sence of danger to life and limb. *Second.* The superior results as regards the functions of the limb and the joint. *Third.* The greater rapidity of repair. He then proceeded to adduce a considerable amount of clinical evidence in support of his assertions, among which he mentioned a case of compound fracture which had been under his own care. The patient fell from a scaffold, fracturing the patella transversely, and the joint was found to be wide open and filled with blood. Yet in a few weeks the man was walking about again with perfect ease, and at present the limb was just as good as ever, since he was able to dance, to climb a ladder, and to walk ten or fifteen miles. In speaking of the rapidity of repair, Dr. Dennis related another case of his own, in which the patient died six days after the operation from delirium tremens and Bright's disease, and yet, notwithstanding the short time that had elapsed, very firm bony union was found to have already occurred. There was no callus thrown out, and the reparative process was altogether analogous to primary union in the soft parts. The entirely unique specimen from this case was also presented. The remarkable gain in time resulting from this operation is certainly a very important object, not only to the day-laborer, but to the professional and business man.

It was true, he said, that the Academy of Medicine in Ireland and the Société de Chirurgie had declared against the new operation; but he had no doubt whatever that the tide of professional opinion would soon turn in its favor. The circumstances had been very much the same as regards abdominal section in surgery, in regard to whiah so complete a revolution of sentiment had occurred. It had been claimed that the knee-joint would be liable to the formation of osteophytes after this operation; but this was merely a fanciful objection. Another objection put forth was that ramifying osteitis was likely to occur; but he had never seen any such result.

Dr. Dennis devoted the latter part of his paper to a discussion of the technique of the operation, and finally announced a number of conclusions, among which were the following:

1. In compound fractures of the patella there is not the slightest doubt of the propriety of the operation.

2. In recent and old fractures, under ordinary circumstances, and with the patient's consent, it is wholly justifiable.

3. In debilitated patients, and those suffering from organic diseases, the operation should not be performed.

4. It is not an operation which can be indiscriminately performed. It should never be undertaken by the inexperienced, or by any one who has not the most perfect faith in the efficacy of antiseptic surgery.

5. Success depends on the most strict observance of the minutest details of antiseptic procedure.

6. Its results are far more satisfactory than those attending any other method of treatment.

At the end of the paper, Dr. Dennis presented a number of patients who had been cured or were in process of treatment, and among them was the case of compound fracture which he had narrated, as well as a similar one treated by Dr. Fowler, of Brooklyn, which was the first of its kind in this country, and which, he said, marked an era in the progress of American surgery.

Among those who took part in the discussion were Drs. Fowler and Burge, of Brooklyn, and the latter remarked that up to this evening he thought he had brought the treatment of fracture of the patella up to a state of great perfection; but now he felt like a junior student. He believed that he had actually learned more at this meeting than he could have done by a three months' sojourn in Europe.

Afterwards Dr. H. M. Biggs, of the Carnegie Laboratory, gave a demonstration of cultures of the micro-organisms of osteo-myelitis, and Dr. F. Forné, a surgeon in the French Navy who is now stationed on one of the men-of-war in New York harbor, presented a new instrument, a true *serre-nœud*, for tightening a knot continuously, which Dr. Gouley pronounced the best device for the purpose which had ever been invented; believing that it would prove of especial value in ovariotomy.

The ninth annual commencement of the training school for nurses of the Charity and Maternity Hospital, on Blackwell's Island, was held October 29th, in the amphitheatre of the Carnegie Laboratory. There were fourteen graduates, and addresses were made by the Rev. Dr. Edward McGlynn, of St. Stephen's Roman Catholic Church, ex-Mayor Wm. H. Wickham, and Dr. F. N. Otis, of the visiting surgical staff of Charity Hospital. The report of the school was read by Dr. L. L. Seaman, Chief of Staff, who stated that since its organization, in 1875, it has had upon its roll 267 students, of whom 151 have been graduated. At the conclusion of his report he said: "I am proud to say among the nurses now may be found many ladies of culture and refinement, and the skill of the physician has been supplemented by the skill of the educated nurse. The care and sympathy received by the patients promoted their recovery; while the presence among them of the pupils of the school so improved the moral tone of the institution that the cells for punishment were no longer necessary, and were removed. The death-rate of the Hospital has steadily diminished since the introduction of the training school, as shown by the statistics of the past ten years. It is now nearly sixty per cent. less than before the establishment of the school, and while other causes have contributed to diminish the mortality, none has exercised so great an influence as the increased efficiency in nursing, due to the careful training of intelligent nurses." In the evening the ladies of the graduating class had a festive dinner at Charity Hospital.

An adjourned meeting of the "Anti-Vaccination League" was held October 26th, at the house of Dr. R. A. Gunn, the late Dean of the notorious exploded United States Eclectic Medical College, at which there were gathered at least a score of persons. The illustrious Mr. Henry Bergh presided, and delivered a harangue, in which he explained that the purpose of the meeting was to form a definite organization, to be duly incorporated under the State laws. Under such an organization, he thought, could the public be

fully aroused to the frightful evils of vaccination as in no other way. Dr. Gunn also made an address, in which he stated that members of the League held themselves in readiness to prove the fallacy of the theory of vaccination to the satisfaction of the public whenever its advocates or members of the Health Board would discuss it in open debate; and a committee was appointed to draw up articles of incorporation for what is to be known as the "American Anti-Vaccination Society." With the lessons of the Montreal epidemic staring it in the face, the public, for whose welfare these noble gentlemen are so solicitous, is hardly likely to flock to the standard of the new society in overwhelming numbers. It is certainly a bad time to begin an enterprise of this kind at present.

Dr. John T. Nagle, Deputy Register of Records of the Health Department, has given orders to the clerks having charge of the issuing of burial permits not to grant any permits for the removal of bodies from this city to the new Mount Olivet Crematory at Fresh Pond, Long Island, for cremation. The order is based on the fact that the present Sanitary Code makes no provision for the cremation of human bodies, and that this is in reality a violation of the Code. The authorities of the crematory will therefore be obliged to seek legal assistance in rescuing them from the unexpected dilemma in which they are placed.

A very laudable enterprise has just been successfully inaugurated in the opening of a free circulating library for the blind. There are said to be over a thousand blind persons in this city, and as the purchase of raised letter books is necessarily expensive, the library will be an incalculable blessing to many of them who have not the means to buy such works. It is the first project of the kind ever undertaken in this country, and voluntary subscriptions are entirely relied upon for its support. P. B. P.

REDUCTION OF TEMPERATURE BY ICE-BAGS.

To the Editor of the Journal.

Sir:—Stephan, of St. Petersburg (see Journal September 26, 1885), is of opinion that the temperature in fever may be lowered by the application of ice-bags over the super-clavicular region. This effect is produced by bringing the cold in contact with the large superficial veins of the neck. I have noticed that in some cases of pneumonia a sensation of intense heat is one of the most trying sensations from which the patient suffers. In two of my cases much relief was afforded by the continuous application of the ice-bag to the occipito-cervical region. One of the patients told me "it was the only comfort he had." F. A. Burrall, M.D.

48 West 17th St., New York.

STATE MEDICINE.

PROVISION FOR THE INSANE IN TENNESSEE.

During the last two years, Tennessee has been actively improving the accommodations for her insane. The hospital at Nashville, under the care of the distinguished alienist, Dr. John H. Callender, has been overcrowded for several years. A new asylum at Lyon's View, near Knoxville, in East Tennessee, is nearly completed, and is expected to be open for patients in December next. The site is well selected, and the buildings have been constructed under the direction of Dr. Michael Campbell, who has recently been elected Superintendent of the Institution. Dr. Campbell was with Dr. Callender in the hospital at Nashville two years, and is well qualified to fill the place of Superintendent. We learn from a recent copy of the *Nashville American*, that Dr. C. C. Fite, of that city, has accepted the appointment of Assistant Superintendent in the new asylum at Lyon's View. Dr. Fite is not only well and favorably known to the profession in Tennessee, but throughout the Mississippi Valley, and will discharge the duties of his new position with ability and fidelity. The State has also made an appropriation for another asylum in West Tennessee, and a Commission is now engaged in selecting the most appropriate location.

HEALTH OF MICHIGAN FOR OCTOBER, 1885.

Reports to the State Board of Health, at Lansing, by regular observers in different parts of the State, show that, for the month of October, 1885, compared with the preceding month, diphtheria had increased, and that diarrhœa, cholera morbus, dysentery and cholera infantum had decreased in prevalence. Compared with the average for the month of October in the seven years from 1879–1885, remittent fever, intermittent fever, typho-malarial fever, diarrhœa, consumption of the lungs, typhoid fever, bronchitis, dysentery, and cholera morbus, were less prevalent in October, 1885.

For the month of October, 1885, compared with the average of corresponding months for the seven years 1879–1885, the temperature was lower, the absolute humidity was less, the relative humidity was much more, and the day and the night ozone were more. Including reports from regular observers and others, diphtheria was reported in fifty-nine places within the State during the month, and measles in three places.

ASSOCIATION ITEMS.

INFORMATION OF IMPORTANCE TO ALL MEMBERS OF THE AMERICAN MEDICAL ASSOCIATION.

Membership.—Every one who attends an annual meeting of the Association as a delegate pays at that time five dollars, and thenceforward becomes a Permanent Member. He continues as such as long as he remains in good standing in the body from which he was originally sent as a delegate. As a Permanent Member, he must pay *Five Dollars Annually*, when notified by the Treasurer, whether he attends the meetings of the Association or not. Payment of annual dues entitles him to receive the weekly Journal of the Association for one year.

MEMBERS BY APPLICATION are such as have not become Permanent Members in the manner above indicated, but apply to the Trea urer for membership, forwarding at the same time to him five dollars and the certificate of the President and Secretary of their State or local society, that they are in good standing in such society. They pay five dollars annually thereafter, when notified by the Treasurer. Members by application can join the Association at any time, and they receive regularly the weekly JOURNAL.

WHEN DUES ARE PAYABLE.—The annual dues from Permanent Members are payable to the Treasurer at the time of the annual meeting of the Association, or immediately thereafter. The payment entitles the member to receive the JOURNAL for one year from the following July. Payment for 1885, for example, entitles the member to the JOURNAL from July, 1885, to June, 1886, inclusive.

As some of the members have not yet forwarded to the Treasurer their dues for 1885, they are urgently requested to do so at an early day. Having entered upon another year of membership, they are morally and legally responsible to the Association for the payment of their annual dues, having already received for three months of the new year—1885—the JOURNAL of the Association.

SUBSCRIPTIONS TO THE JOURNAL, from those who are not members of the Association, should be forwarded to the office of publication, 65 Randolph Street, Chicago, and not to the Treasurer; but *all payments of annual dues must be forwarded to the Treasurer, Lock Box 1274, Philadelphia.*

DEATHS.—When a member of the Association, who is in regular receipt of the JOURNAL, dies, his family or other representatives are requested to inform the Treasurer at once of the fact.

PAYMENT OF DUES FOR PREVIOUS YEARS.—As a few members of the Association are still in arrears for payment of dues for 1883 and 1884, they are requested to forward at once to the Treasurer the amounts for which they are indebted to the Association.

TRANSACTIONS OF THE ASSOCIATION.—These annual volumes, thirty-three in number, to 1882 inclusive, may still be obtained, with few exceptions, from the Treasurer, at reduced prices. The Index to these volumes will be forwarded on receipt of *One Dollar.* An opportunity is thus afforded to complete sets of these valuable publications, or to obtain important papers and works which are daily becoming scarce.

RICHARD J. DUNGLISON, M.D., *Treasurer.*
Lock Box 1274, Philadelphia, Pa.

MISCELLANEOUS.

AMERICAN PUBLIC HEALTH ASSOCIATION.—Arrangements have been made with the Baltimore & Ohio R. R. to carry delegates and members of this Association, their families, and all others desiring to attend the annual meeting of the American Public Health Association, to be held at Washington, D. C., commencing December 8th, 1885.

In view of the fact that public interest, at the present time, is centering in epidemics, it is especially urged that members of different Boards of Health take part in this meeting, either in a body or by sending delegates, as it promises to be the largest and most interesting meeting of the kind ever held in this country. It is, perhaps, unnecessary to call your attention to the importance of attendance, when taking into consideration the fact that the coming season gives promise of being one of epidemics, and that it is necessary "in time of peace to prepare for war," and in the discussion of preventive measures, by those who have spent years in their study and practical workings, reach in the shortest time the best methods.

Delegates and others desiring to attend the meeting, paying the limited fare ($17.00), via the Baltimore & Ohio lines, will be returned at one-third the limited fare ($5.85), making a rate of $22.85 Chicago to Washington and return. Certificates for the return tickets will be signed by Irving A. Watson, Secretary, at Washington.

It is hoped that all will avail themselves of the above low rates to attend the meeting.

Those who contemplate going will advise T. H. Dearborn, General Northwestern Passenger Agent Baltimore & Ohio Railroad, 83 Clark Street, Chicago, who will assign them such sleeping car accommodations as they may desire. State date of leaving Chicago.

WILLIAM BENJAMIN CARPENTER, LL.D., F. R. S., the eminent English physiologist, died a few days ago from the effects of burns caused by the upsetting of a lamp while he was taking a vapor bath for rheumatism. He was born in 1812. He was graduated in 1839 from the medical school in the University of Edinburg, after having passed through University College, London. Prior to 1839 he published a work "On the Unity of Function in Organized Beings," and subsequently a number of other works on physiology and the use of the microscope. Dr. Carpenter at one time was Professor of Medical Jurisprudence in University College, London.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM OCTOBER 31, 1885, TO NOVEMBER 6, 1885.

Maj. Ely McClellan, Surgeon, leave of absence granted in orders Cav. Depot, Jefferson Bks., Mo., Oct. 30, is extended seven days. (S. O. 254, A. G. O., Nov. 4, 1885.)

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING NOVEMBER 7, 1885.

Medical Director David Kindleberger, granted leave of absence to June 30, 1886, with permission to leave the United States.

Asst. Surgeon F. W. F. Wieber, to remain on receiving ship "Vermont" until May 15, 1886.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE WEEK ENDED NOVEMBER 7, 1885.

Urquhart, F. M. Passed Asst. Surgeon, upon the closure of Cape Charles Quarantine Station, to proceed to Norfolk, Va., for duty. Nov. 5, 1885.

Battle, K. P., Asst. Surgeon, resignation accepted, as tendered, by the Secretary of the Treasury, to take effect Nov. 25, 1885. Nov. 3, 1885.